

ALL HANDS



in this issue
STORY OF A SHIP

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JULY 1958



ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

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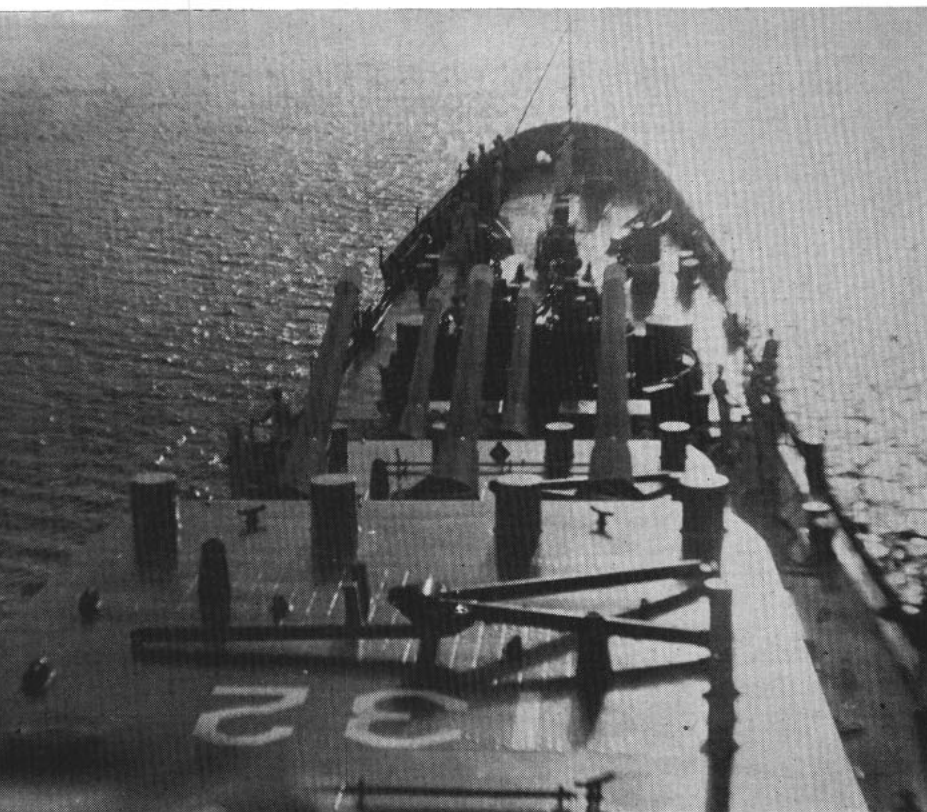
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● FRONT COVER: FRAMED BELOW ship's bell, gun crew on board USS Macon (CA 132) gets practice in firing their 3-inch, 50 caliber antiaircraft guns during cruise out of Gitmo.

● AT LEFT: BIG LADY—Heavy cruiser USS Macon rides at anchor in Guantanamo Bay, Cuba. In addition to her guns the Atlantic Fleet cruiser carries the surface-to-surface guided missile *Regulus* which is launched from her fantail.

● CREDITS: All photographs published in ALL HANDS are official Department of Defense Photos unless otherwise designated.



IN DAWN'S EARLY LIGHT USS Macon heads out to sea. Below: D. Groleau, SN, stands in chains as ship gets under way. L. A. Weeder stands by.



IT'S DARK AND IT'S QUIET. Below, in sleeping compartments, it is hot. There is still an hour to go before reveille is held aboard USS Macon (CA 132). The crew is taking advantage of this respite between the exercises which are so common and so frequent during operational commitments of refresher training.

In the vicinity of the fantail, on the wooden deck, a safe distance from the No. 3 eight-inch turret, a few men stir in blankets which were brought up from below last night and make sleeping in the cool nighttime Guantanamo Bay breezes a pleasure. Their clothes are folded and neatly stacked beside them; a white hat crowns the pile. The only one in the area who really moves about is the sentry, armed with a rifle, pacing back and forth guarding the area where *Regulus I* is stored. Lights, rigged over the side, illuminate the boat boom and its boats.

CA 132 —

They are riding idly and empty.

There is nothing visible to indicate that this 17,000-ton cruiser can generate 120,000 horsepower to move it through the water at 32 knots.

As you move forward along the wooden deck past open doors that lead into a world of their own, you can hear occasional sounds coming through those doors to penetrate the stillness. Sounds like the high whine of a motor or a sonorous snore from a crew member sleeping on a bench near his work.

Macon is "at home" here. Not necessarily at Guantanamo Bay but anywhere in the Atlantic. She's been on the Atlantic side since her commissioning in 1945.

Lights are visible in the vicinity of the port and starboard gangways. OODs walk their posts and rotate megaphones in their hands while meditating on what action they would take in cases of emergency.

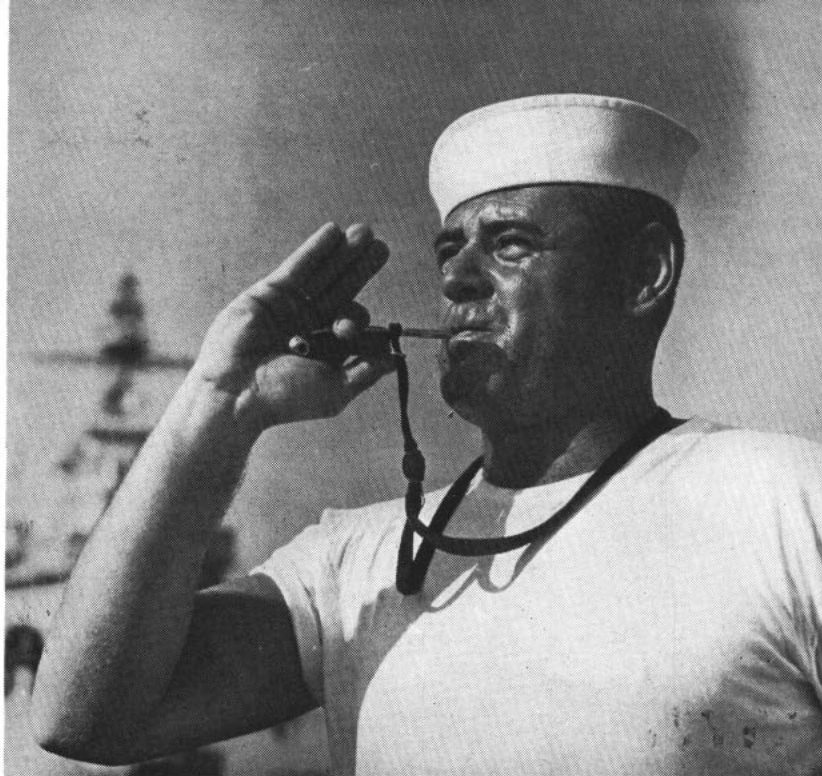
Up on the signal bridge where the steel deck has been freshly scrubbed by the watch and thoroughly dried, rubber mats are laid down. Other men are adding final touches to bring out the luster of highly polished brass fittings. Canvas covers are rolled up and secured, revealing sets of signal flags. Over-

head, four red lights high on the mainmast warn approaching aircraft of obstruction.

Down below, in the fireroom, boilers have been lighted off and soon they'll be cut in on the main steam line.

The time for reveille is close now. It's easy to tell even without the aid of a clock. The inevitable, a boatswain's mate sitting on one of the bitts drinking a cup of coffee, supplies you with your answer. The word is previewed by "reveille call" on the bugle. Then the word that starts men stirring in their bunks: "Reveille, reveille. Heave out and trice up, the smoking lamp is lighted in all authorized spaces." Slowly, at first, things begin to happen.

There's a shuffling on deck as men are routed from their cool sleeping spaces on deck. One by one they get up, slip into their shoes, put white hats on their heads, roll up their



THE STORY OF A SHIP

blankets, tuck them and their clothes under their arms and disappear down a hatch. A quartermaster makes his appearance on the bridge, opens the glass enclosure of the clock, holds his finger on the second hand, checks the chronometer he holds in his hand then, at the precise second, lifts his finger. The clock is correct and today the time must be right. Today the guns and *Regulus I* will fire.

The guns on this ship have never fired a shot in anger. About the

closest she's come was during one of the times she was operating as a functional arm of the Sixth Fleet during the Suez crisis. She didn't fire. But she was ready.

Reveille has gone less than 15 minutes. Other calls have come over the speaker; now it is "Away all boats." Shortly thereafter, there is the deep-throated muffled roar of small-boat engines being started; then the boom is swung in. Breakfast for the watch and special sea de-

tail has gone down.

Tompions must be removed from gun barrels. Circuits and primers are to be tested. Although no word has been passed, every eight-inch turret, each five-inch mount and all the twin three-inch guns have at least one man wearing earphones while the circuit testing is going on. One of the men in the mount leans out a door, his earphones crushing his baseball hat. He yawns, and wipes some sleep from his eye. The No. 2 turret swings

USS MACON (CA 132) heads to sea for gunnery exercises. Above: R. Paulison, BM2, starts things humming.





DAWN PATROL—L. Shephard, SN, USN, stands fo'c'sle watch as the heavy cruiser *USS Macon* wakes up and makes ready for a day of training at sea.

out to port. The barrels move up and down in unison, and then as individuals.

A flashlight probes a path along deck leading to a seaman making up a line on the fo'c'sle. From out of the bowels of the ship, up through a hatch, a dungaree-clad sailor is momentarily silhouetted. He steps out on deck, munching on an apple, and moves toward a small cluster of men who are visible, mainly, by the red end of cigarette butts glowing in the

dark. They wait for the word to start doing their specialties.

There is a quarter moon. The stars are bright and the sky is beginning to lighten. More and more men appear on deck. The effects of the first awakening gulps of coffee erase frowns and actually turn some faces into smiles as a joke is cracked about something that happened on liberty the night before.

The deck gang moves about checking loose gear and gets ready to take

over special sea details. A boatswain's mate calls out, "Let's get these scuttles secured." Someone moves and a scuttle drops into place; a twist of a wheel and it is secured.

Radar screens are spinning. The anemometer turns slowly, indicating it is close to calm. Uniform of the day is set—dungarees, clean white skivvie shirts and blue (baseball-type) cap. Condition Yoke has long been set.

A call comes over the speakers: "All divisions make their readiness for sea reports to the OOD." Gangway lights are unrigged and stored. The mailman, his bag over his shoulder, waits at the gangway. He'll return aboard tonight after the firing and bring back those ever-important words from home.

It's routine now. Chow is almost over. Men have just about manned all of their "getting underway" stations. The word hasn't been passed yet. But that will be soon. Special sea detail is set.

The men in the ship have already been notified in the Plan-of-the-Day that the ship is due to get underway at 0600. The whistle blows announcing the ship is underway. The sound is carried throughout the ship over the speaker system. Men hear the sound, check their watches (some even set them) and nod at one another.

The Plan-of-the-Day says, "Underway at 0600." The blast of the whistle confirms the time.

—Thomas Wholey, JOC, USN.

'AWAY ALL BOATS'—First boat leaves with softball team. *Right:* Early morning detail gets canvas spic and span.



Faces in the Fleet: Cruisermen



CHBOSN J. G. Rodgers, USN



Robert Garcia, GMC, USN



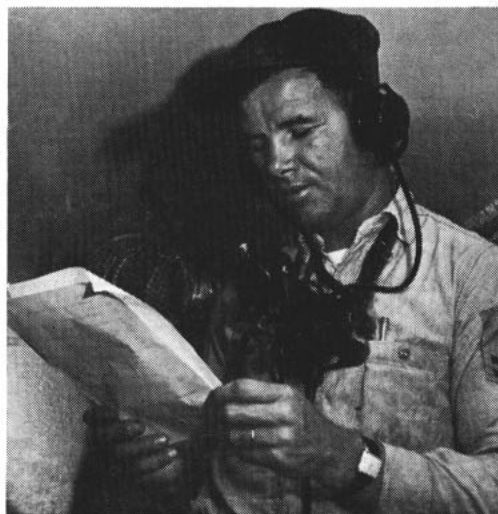
John Lipieko, BM2, USN



C. E. Bowman, BM1, USN



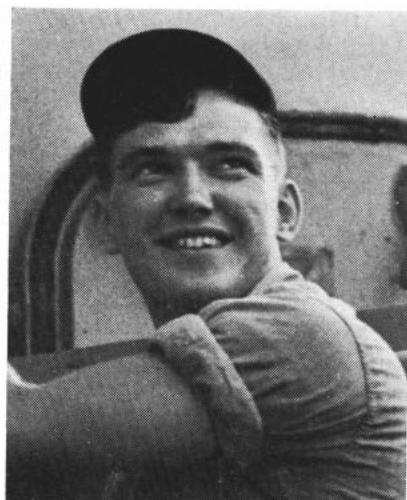
'Pappy' W. S. Davis, SN, USN



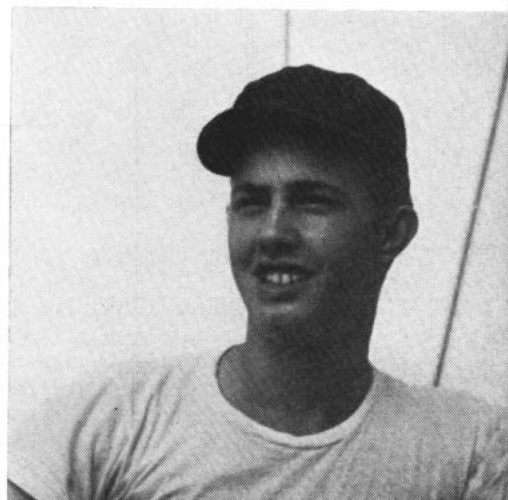
Lloyd Little, BM2, USN



H. M. Rasar, SN, USN



William Woods, JO3, USN



R. W. Foote, SA, USN

TOPSIDE



MACON'S SKIPPER, Capt. Harry Hull, USN, and Gun Boss watch ship's firing.

Ship's Skipper: The Man and the Job

IN THE HANDS of one man—the commanding officer—lies the destiny and well-being of every U. S. Navyman in each U. S. Navy Ship. His is the ultimate responsibility for the performance of his command which, on board *USS Macon*, is represented by some 1200 men and a 17,000-ton heavy cruiser.

This responsibility is carried by CAPT Harry Hull, USN. A soft-spoken Georgian, Captain Hull is an Academy graduate of the class of 1932. Since that time, he has served in an aircraft carrier, *USS Lexington* (CV 2), and during World War II, in submarines, including *S-22*, *Skipjack* (SS 184) and *Thresher* (SS 200). Later, he commanded a destroyer, *Orleck* (DD 886), an ammunition ship, *Firedrake* (AE 14) and an attack cargo ship, *Merrick* (AKA 97). Among his decorations are included the Navy Cross and the Bronze Star.

Before receiving his four gold stripes, Captain Hull had served as Fleet Liaison Officer at the Naval Ordnance Laboratory, White Oak, Md., and later was Fleet Operation Officer for CinCPacFlt in Pearl Harbor. He has commanded *Macon* since 29 Oct 1957.

As commanding officer, he is responsible for the:

- Supervision of the conduct of

all persons under his command.

- Morale, welfare and living conditions of the crew.
- Maintenance of the personnel and material readiness of the ship for war service.
- Security of material against compromise, theft or sabotage.
- Safety of the ship. This means specific orders regarding the handling, stowage, and use of ammunition; provisions for watertight integrity involving closing watertight doors, opening ports at sea. While the navigator is charged with all the specific duties of determining the position of the ship, the commanding officer has the ultimate responsibility in all matters of navigation.
- Details of training and education. The executive officer acts as his agent, but the final responsibility is that of the commanding officer.

In the presence of the enemy, the commanding officer is required to engage, fight to the best of his ability, and destroy the enemy.

In case of loss of his ship, he must be sure that abandon ship procedures are completed and all other personnel are off the ship before he leaves it.

All in all, a real man's job.

QUARTERMASTERS who know what lies over the horizon—boatswain's mates who keep the ship in fighting trim, ready for whatever may come—radarmen who guide fighter aircraft in strikes against enemy planes far beyond the range of the ship's guns—radiomen and signalmen who give the ship communications—these are occupants of *Macon's* topside.

From the main deck to the highest levels of the superstructures, these men practice their trades. Some know every major star in the sky, others can tie countless variations of knots, another group can quote the latest electronic theories. But all know that their job may some day be instrumental in taking *Macon* to the enemy and bringing her out a winner.

They work in *Macon's* topside with the top brass of the ship. The captain, executive officer, operations officer, navigator and the gunnery officer are all familiar to them. This is where *Macon* thinks. Courses are laid out, plans for future combat operations are made, and policy is shaped within this towering structure where the CO lives and the officer of the deck watches *Macon's* bow cut through the water.

The organization that does all of this is clearly outlined in *Navy Regs* and is repeated and expanded upon in *Macon's* organization manual. A similar command structure can be found on nearly every combat ship with slight variations depending upon the primary mission of the ship.

THE DECK GANG

ONE OF THE BEST known groups of men to walk *Macon's* topside is the "deck gang"—boatswain's mates and seamen who participate in nearly every shipboard evolution. From the day a ship is commissioned until the pennant is hauled down, the deck force is on the move. Getting underway, entering port, normal steaming watches, and ceremonies on deck are just a few of the jobs assigned to these sailors.

When *Macon's* alarms sound General Quarters, the deck force stands beside the gunner's mates in manning the guns. When the engineer

IN A NAVY MAN-OF-WAR

reports a need for fuel, it is the deck gang that rigs the hoses during underway refueling. If supplies or personnel are transferred at sea, the BMs step in to man the lines.

Macon's boatswain's mates and their charges make their home in divisions 1 thru 7 of the Gunnery Department. Each division maintains its own province.

First Division has the forecastle aft to the turret 1 area, including the turret. The 2nd Division runs from turret 2 back to the superstructure and includes the two forward boat booms.

Men of the 3rd Division are responsible for an area that extends from just forward of the after end of the superstructure to turret 3, and the mainmast. The port side up to the 03 level, and the forward stack, belong to the 4th Division along with the Number 2 motor whaleboat. The 5th Division has a like area on the starboard side, the after stack and the Number 1 motor whaleboat. The forward 01 level, the quarter booms, and the foremast are cared for by the 6th Division while the 7th has the area aft of turret 3 and the stern crane.

The divisions are also responsible for their particular gun mounts (see gunnery story, page 26), working, supply, and living spaces and for the ship's boats. Four 33-foot utility boats are operated and maintained by the 1st, 2nd, 3rd, and 7th Divisions. The 4th has the gig and the 6th has the officer's motor boat.

A BM1 is responsible for the normal cleaning of the hull down to the water line. Fourteen side cleaners are assigned to him for this purpose by various *Macon* divisions.

MAINTEINING A SHIP the size of a heavy cruiser takes a lot of elbow grease. The wood covered main deck comes in for its share of attention with the holystone the seaman's principal weapon in keeping the deck in shape. Every other week the deck gets 20 strokes, delivered in time with what is identified as an old sea chanty, but sounding suspiciously like rock and roll. After the deck gang finishes their 20 strokes, applied to every square inch of the deck, and have used scrapers to remove stains and rough areas, the gunner's mate striker who spills

oil on the deck or the seaman who lets paint drip on to the wooden surface is scheduled for trouble.

Paint is a big subject on *Macon*. She wears about 200 tons of paint inside and out, top and bottom. That's 1.5 per cent of her total displacement (13,000 tons).

Take a look at these figures. The underwater area amounts to about 60,000 square feet. The bare metal is covered by 300 gallons of pre-treatment coating followed by 600 gallons of anti-corrosive paint. On top of this is sprayed 15,000 pounds of hot plastic anti-fouling paint.

A 90-day supply of paints, varnish and thinners for *Macon* amounts to 257 gallons or approximately 2800 pounds of paint according to the BuShips allowance list. Included in this supply, stored in the 4th Division paint locker forward on the portside, is striping paint, boot topping paint, interior and exterior deck paint and other types of coverings including spar varnish and primers.

To spread this paint evenly over the bulkheads, decks and hull, *Macon* has an allowance for 83 paint brushes, 25 rollers and three spray outfits. The brushes range from tiny

artist types to flat 3½- and 4-inch brushes. Sash brushes and varnish types are also included.

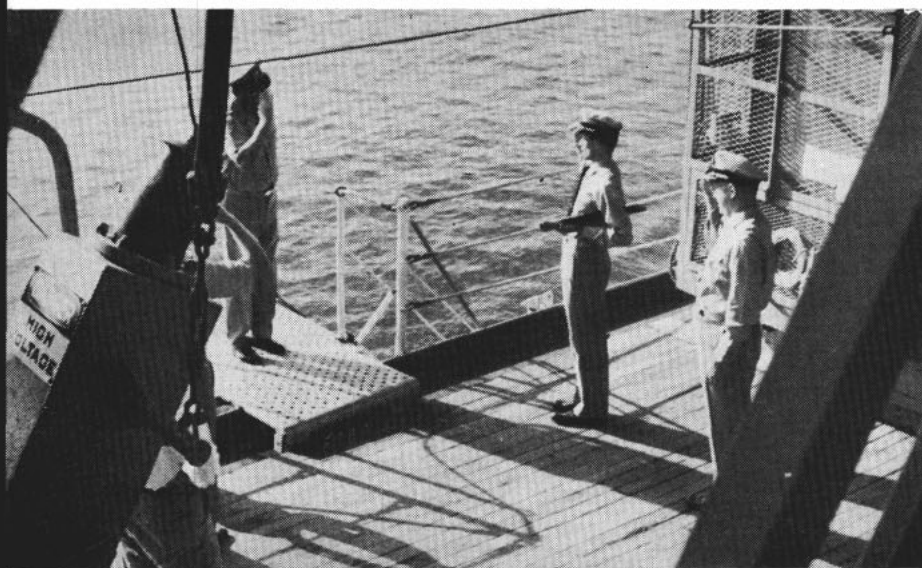
A lot of this paint is expended on the forecastle keeping the ground tackle in good shape. The 1st Division men keep this area sparkling with a combination of black and gray paint. Each visible link of the 170-fathom-long port chain glistens as it rests on deck beside the 125 fathom long starboard chain. At the end of each of these chains, made up of 54-pound links, hangs an eight-ton anchor.

THE TWO PRINCIPAL deck officers, the first lieutenant and the ship's boatswain, who work directly under the gunnery officer, can be found on the forecastle whenever the ship is entering or leaving an anchorage area. Four BMCs, a number of boatswain's mates, one first class and a group of well-trained seconds and thirds assist the two officers in getting the jobs done right.

One of the busier times for these men who wear the crossed anchors is during replenishment and refueling. First Division has the forward fueling station where they work under the direction of the first lieu-

MEN WITH A LINE—Cruisemen of *USS Macon's* deck gang handle lines while rigging their ship for highline transfer of supplies during cruise.





WELCOME ABOARD—Officer of the Deck greets commander of Fleet Training Group while USS *Macon* goes through training exercises in Atlantic waters.

tenant. The ship's boatswain directs the 3rd at the fueling station aft.

Replenishment stations go to the three turret divisions and the 7th. The first rigs the lines on the side of turret 2, the 2nd Division near frame 48 and the 3rd on turret 3. The 7th Division rigs a replenishment station near frame 128 and the 6th Division takes care of the high-lines.

To illustrate the effectiveness of the training received by these divi-

sions, Fleet Training Group observers at Guantanamo Bay, Cuba, recorded the following times during practice replenishment sessions. While 300 yards astern of the supply ship the signal flag, Romeo, was hoisted and from that point *Macon* had five minutes to make her approach and get the first manila line over. The line arrived just as the second hand ticked off five minutes.

From that moment the crew had 6 minutes to rig and get the first bag

of cargo across which they did with a saving of many seconds. Four minutes were allowed for *Macon's* crew of seaman and boatswain's mates to unrig, accomplished again with a saving of many seconds.

In the same manner the fueling rig time at the after station was cut a full minute.

N DIVISION

BRINGING A SHIP the size of *Macon* alongside a tanker or supply ship at sea takes smart maneuvering which requires that an experienced man act as steersman. This is a job usually assigned to one of N Division's quartermasters.

Walk up to the bridge area and you will see him working with charts, looking through a small black device at the sun or watching a distant beach through a small telescope mounted on a stand. (He is not watching the bathing beauties. He is taking bearings.) This man is a quartermaster.

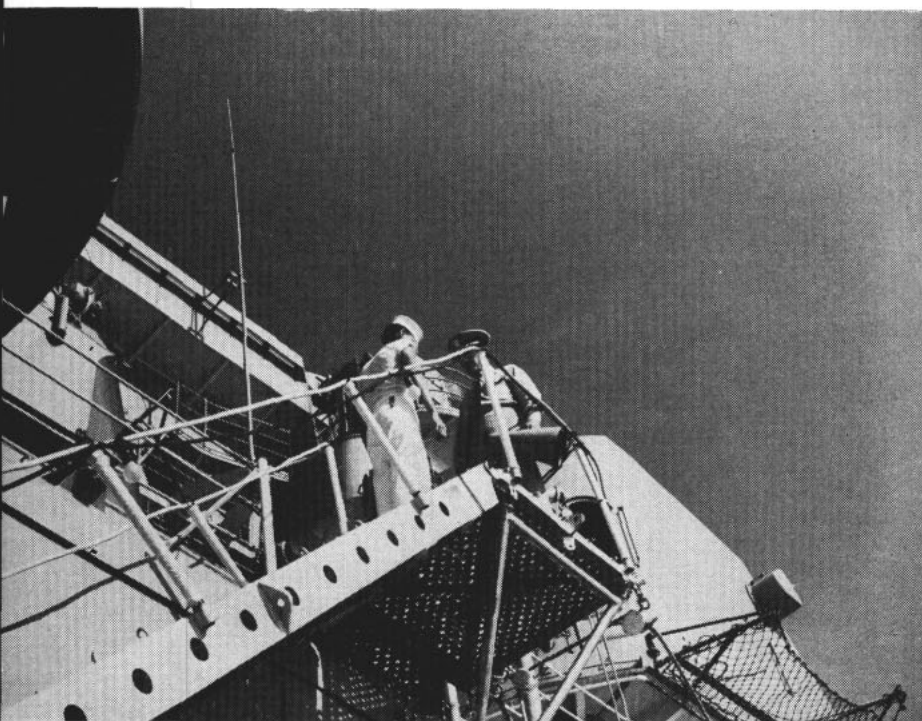
It is said that he will be one of the first to know where the ship is going and when it will get there for he acts as the navigator's assistant, steers the ship, and rings up the desired speeds on the engine telegraph. The tools of his trade are the pelorus, alidade, chronometer and sextant.

A quartermaster uses the artist's pen for correcting charts and he can read weather maps and make reports on the weather.

The Navigation Department is, of course, under the navigator and his assistant who also serves as the N Division officer. A navigator's yeoman takes care of typing the finished copies of *Macon's* log in the office on the second deck.

Assisting the navigator is a chief quartermaster. Under him comes the leading division petty officer, the division's police petty officer and the other N Division personnel.

It is the responsibility of the quartermasters to train their strikers for duty as steersmen. In times of emergency, or when entering or leaving confined waters a senior petty officer will usually be found at the wheel. At other times a seaman or a QMSN will have the wheel, but hovering nearby will be the quartermaster of the watch, ready to make corrections or to give instruction and advice. A steersman and a lee steersman are usually on *Macon's* bridge at the same time. They alternate at hourly intervals between the wheel and engine order telegraph.



LOOKING UP—Officer of the Deck carries out his duties at top of accommodation ladder as USS *Macon* rests at Gitmo during training cruise.

The N Division spaces are for the most part located in the conning tower on the 04 and 05 levels. Here they work in the chart house and on the navigator's bridge. The navigator's store room is on the second deck and the quartermaster living spaces are on the third.

As chief assistant to the conning officer and the navigator, a *Macon* quartermaster must have the answers to any question that might come up during his watch. In addition to his own duties he must know those of the OOD.

In some ways the quartermaster is a historian, recording the daily events occurring in and around the ship in his Quartermaster Notebook. The rough deck log he maintains carries a continuing record of the distances covered by the ship, engine speed and other information related to fuel, water, draft, magazine temperatures, tides and currents, and weather observations.

In addition to carrying out the normal watch routine of taking and plotting bearings and using the compass, azimuth circle and stadimeter, *Macon's* quartermasters keep up on the latest hydrographic information and keep the ship's collection of charts up to date.

THE NAVIGATOR

THE NAVIGATOR "is responsible, under the Commanding Officer, for the safe navigation and piloting of the ship, training of deck watch officers and the upkeep of all navigational equipment." So says *Macon's* Organization Manual in describing the basic functions of the navigator.

This is the officer on the bridge who must know the sea lanes and harbors. If he doesn't already know them inside and out he must study his charts and hydrographic manuals to learn about the conditions that can be expected, shoals, rocks and reefs that may exist, and also what anchorage spaces are available and if berths of sufficient size for *Macon* are available.

Macon's navigator keeps an accurate plot of the ship's position and course by astronomical, visual, electronic and other appropriate means. This information is reported to the CO three times daily and at other times if required. He also keeps the OOD and CO informed of the ship's movement. If a danger is apparent he must be in a position to recommend a safe course to be steered.

Keeping informed of the prospec-

Mission of a Navy Cruiser

TO ENGAGE IN COMBAT operating against surface ships, to destroy shore installations, and to defend against airborne threats." This is the mission of *USS Macon* and other conventional heavy cruisers as outlined by the Chief of Naval Operations.

In those 18 words the Navy has assigned every bit of *Macon's* combat capabilities a task. The cruiser plays an important role on the offensive. The 8-inch guns and the big, blue war models of the *Regulus* missile which the ship carries, will be used to strike out at the surface ships and enemy shore installations. The nine 8-inch rifles can blast targets more than 17 miles away and the *Regulus* makes jet-propelled flights of more than 500 miles.

The defense against airborne threats is a dual one on *Macon*. Not only are her guns trained on air targets that come within range, but *Macon's* Combat Information Center can be used to guide friendly interceptors to targets far beyond the range of guns and surface-to-

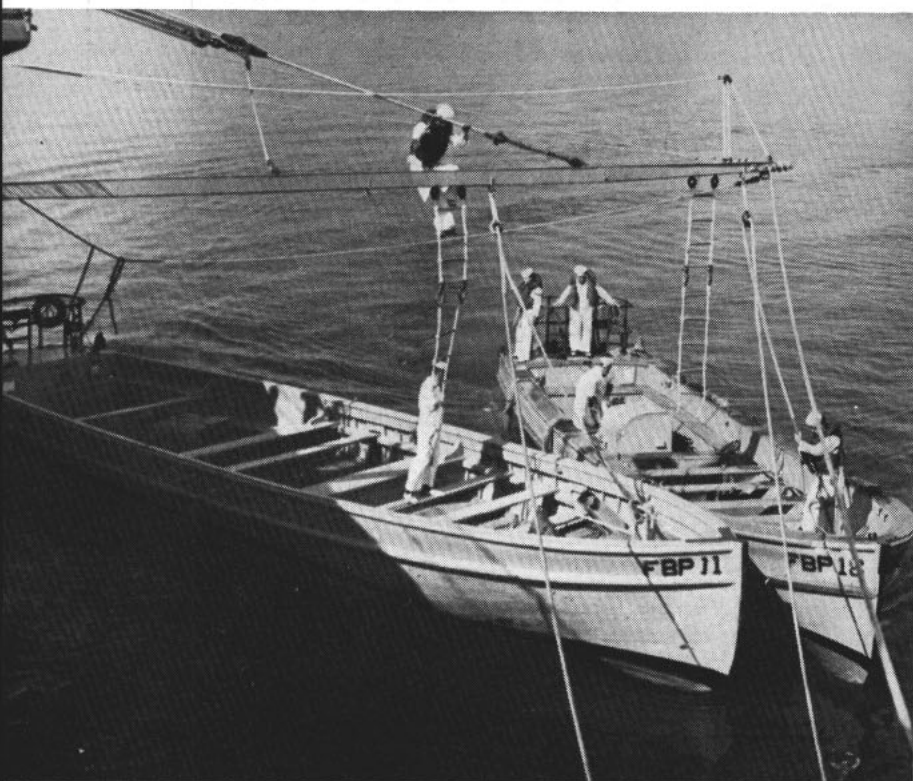
air missiles. In the past this role of air controller was traditionally assigned to an aircraft carrier but with the advent of dispersed formations, the cruiser serves to broaden the air detection and air control capabilities of a naval task force.

The cruiser was a natural choice to fill air defense gaps. With her speed she could keep up with the big carriers in all types of weather. Her equipment was capable of detecting and tracking enemy aircraft and she has the ability to control friendly interceptors. Her communication features make it possible for *Macon* to coordinate the firing of guns and surface to air missiles carried by other ships in the formation.

Macon is a medium-sized ship with a high speed, a large cruising radius, moderate protection and excellent seakeeping ability. These attributes make her the logical platform for the weapons designed to defeat the enemy on coastal shore, on the ocean surface and in the sky. Cruisers today can back up each of the 18 words outlined by CNO.



MORNING DUTIES—Special sea detail lowers jack staff as *USS Macon* gets underway for a day at sea to test-fire her guns and *Regulus* guided missiles.



SMALL BOAT COXSWAINS descend their 'private gangway' from boat boom to handle liberty boats lent USS *Macon* by Fleet Boat Pool, Guantanamo Bay.

tive movements of the ship and obtaining the necessary routing information is another of his jobs. In connection with this he must have on board the latest navigational information.

Paperwork takes up a large portion of his time. The navigator is responsible for the preparation of the Deck Log, standing orders or instructions for the OOD and the Captain's Night Orders. Daily checks assure him that the Quartermaster's Notebook is being properly kept.

THE MAINTENANCE of official records of all observations and computations made for the purpose of navigating the ship is another big job. Included is the Navigator's Work Book, Sight Log, Azimuth Record Book, Bearing Book, Loran Log, Fathometer Log, Chronometer Log, Magnetic Compass Record and Chart Records.

Maintenance of the navigation equipment is another major task for his department. Electronic navigational equipment must be adjusted and calibration data maintained and checked. The steering gear with the exception of the steering engines and motors, degaussing equipment, pitometer log and navigation lights must be in good working order.

Reference to degaussing equipment brings up another of the navigator's duties. He must make sure that the ship is properly depermed, a protection against magnetic mines. Also he must have the degaussing coils calibrated after commissioning and whenever it becomes necessary.

And the navigator must be a clock watcher because accurate navigation is dependent on precise times. Consequently the men who work under him wind the chronometers daily and make comparisons with a radio



RIG MAN—Jim Hanrahan sets placing of *Regulus* on ship's fantail.

timed signal to determine their rate and errors. They also are set to the local time zone.

A good navigator must also be a good teacher. He is responsible for training future officers of the deck who will have the safety of the ship in their hands. He also provides practical navigation instruction for juniors officers and administers officers' general training courses.

OPERATIONS DEPARTMENT

HIGH ABOVE THE navigator, spin the electronic eyes of the ship, sending out and receiving the reflected radar signals. The long cables that lead down from the antennas wind their way through many decks to a place known as Combat Information Center or simply, Combat, key unit of the Operations Department. This is the home of the radar-men, men accustomed to working in this dimly lit room, surrounded by the noise of radio receivers, loud speakers, and voices.

They can—and do—guide the ship through the thickest fog, with *Macon's* electronic eyes searching out hidden land masses and recording them on the radar scopes for human eyes to see. Not only do these electronic eyes provide navigational guidance but at great distances they can portray the advance of enemy planes as tiny white dots marching across the screen. They can also act as a source of information to guide friendly interceptors in their attacks.

The Operations Department consists of four divisions: The radio gang in OR; and the signalmen in OS Division (see pages 38 and 39): the electronics people work under the supervision of the electronics material officer in the OE Division, while the CIC, lookout and ECM personnel may be found in the OI Division.

The CIC officer runs Combat, assisted by a watch officer and a group of specialists ranging from the air controller and gunnery liaison officers to the electronic countermeasure officer. The CIC boss makes sure that the various surface and air plots are kept up to the minute, informs the radar operators of expected contacts and, in general, keeps the show on the road.

His watch officer controls the operation of the electronic search, tracking, height finding, and countermeasure gear. He supervises the control of all airborne aircraft assigned to CIC and maintains all logs and

forms required. When the ship is engaged in normal steaming operations, the OOD can call upon him for assistance in keeping the ship on station and for navigation aid in bad weather; but no matter what the circumstances, CIC still maintains a watchful eye skyward.

When the ship is engaged in actual combat an evaluator may be found on duty in Combat. He recommends a course of action to the skipper after going through the data obtained by CIC personnel. This is usually a duty assigned to the exec or operations officer.

Men from the OI Division man the air and surface summary plots, and keep a visual record of the disposition of all friendly and possible enemy forces, with their courses and speeds.

The radar equipment, maintained by electronic technicians from the OE Division, is operated by radar-men under the eye of the CIC supervisor. This is usually the leading petty officer. The OI Division also provides operators for the DRT plotter and VF equipment and other CIC duty stations.

The surface and air lookouts, who come under the lookout and recognition officer—one of 14 officers who assist the Operations Officer—are also a part of the OI Division.

THE OPERATIONS OFFICER, number three man in *Macon*, is the one who coordinates the efforts of the entire crew aimed toward destroying enemy forces in time of combat. He does this under the direction of the CO, and is also responsible for the planning, scheduling and coordination of the operations of the ship and designated airborne aircraft, including logistic services.

His responsibility includes CIC, external communications and the maintenance and repair of certain electronic equipment. He is also the intelligence officer for the ship, advising the skipper as to what conditions and forces can be expected during combat operations.

Coordinating the operational requirements of the ship with the logistic services necessary is quite a job. When leaving or entering a harbor where tugs and a pilot are necessary, it is up to the operations officer to see that the services are available. He also scrounges up berthing assignments and target facilities, coordinates gasoline and stores replenishment afloat, and ship-to-ship

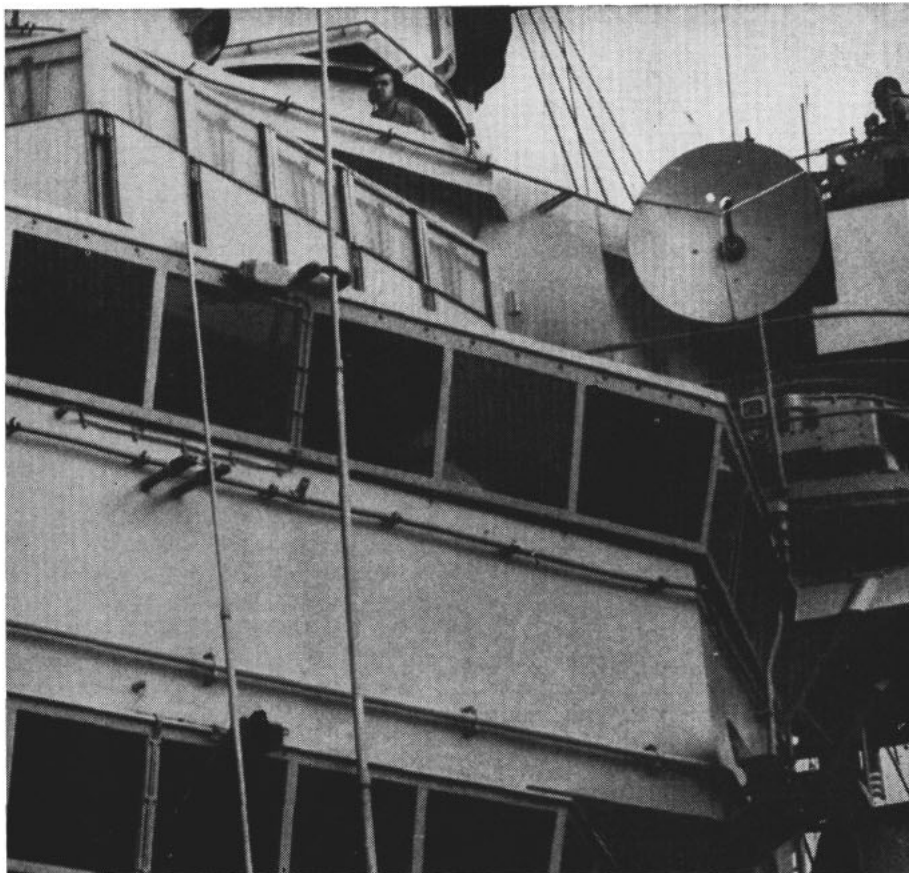
and ship-to-shore cargo and passenger transportation.

Another big job facing the operations officer is making sure that *Macon* gets the proper amount of training while still living up to its operational schedule.

The responsibility he holds over the external communications systems is carried out for him by the communications officer and his assistants (see page 38.) The CIC officer runs combat under the direction of the

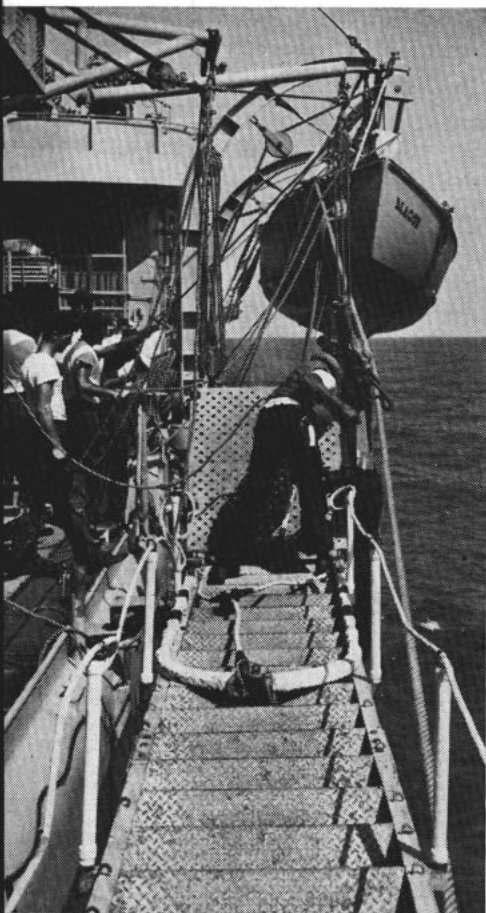
operations officer and the maintenance of electronic gear is handled by the electronics material officer.

ONE OF THE BIG JOBS aboard *Macon* and other ships of her class is the control of the *Regulus* missile. For this, the operations officer has his CIC boss double in brass as the missile control officer. Once the big bird leaves the stern launcher, combat takes over to guide it to the target or to a point where it is turned over to another guidance system.



TEAM WORK—Ship's bridge is headquarters for head man of *Macon's* team. CIC sailors operate eyes of team and keep check on air and surface plots.





STEPPING OUT — As *USS Macon* heads into port her deck gang is a busy bunch. Here, they rig accommodation ladder. Rt: First lieut. directs refueling.

On the paperwork side of his job, the operations officer prepares the necessary reports; supervises the postal activities of the ship; provides for the collection, interpretation and dissemination of aerological information; supervises necessary censorship activities when censorship is placed in effect; prepares and maintains the Visit and Search, Boarding, and

Prize Crew Bills; and prepares plans for current and prospective ship's operations.

He also must be able to collect and analyze intelligence information for the commanding officer, using every means at his disposal which may include captured documents, photographs, information obtained and forwarded by friendly forces, and intercepted enemy messages.

SPECIAL SEA DETAIL

TO GET A GOOD IDEA of how *Macon's* topside gang handles the ship,

take a look at the Organization Manual's sections on special sea detail and underway watch organization.

When the special sea detail is stationed, the executive officer may be found at his post on the navigation bridge, the operations officer in combat, and the navigator and his assistant man the conning stations. The first lieutenant will be on the forecable along with the ship's boatswain, who will be supervising the ground tackle.

A chief boatswain's mate and about 22 sailors will be forward, working with the ground tackle. Included in this group are the lee leadsmen (port and starboard), and a 1JV talker. First Division personnel man the forecable stations when weighing anchor.

A signalman striker from OS Division will be stationed to lower the jack when the ship gets underway, and two others will be on the colors ready to shift, while a fourth will be ready to hoist the anchor ball.

N Division supplies quartermasters for bridge assignments, including steersmen and an engine telegraph operator, one on the peloruses and a quartermaster of the watch. Three N Division seamen are occupied as talkers and a fourth is stationed on the signal bridge. A QM is stationed

KEEP IT CLEAN—Members of special sea detail wash down ground tackle.



ALL HANDS

at the fathometer in the chart house while another is on the 1JV circuit in the secondary conn. Another man who wears the spoked wheel is on the 1JV circuit in after steering, where he acts as steersman in emergencies.

Two 1JV talkers from the 7th Division are stationed on the main deck while two other SNs from the 4th and 5th Divisions act as 1JV talkers on the port and starboard quarterdecks.

Other members of the deck gang are hoisting in the accommodation ladders or bringing boats aboard as the ship prepares to get underway.

ON THE FORECASTLE everything is in readiness. The ship is riding, let us say, on 45 fathoms of anchor chain. The starboard anchor is ready to let go if necessary. Chain is taken in on the port side and later the ship is ordered to "short stay." The churning anchor wildcat draws in more chain until only 15 fathoms are left out. As the chain comes in, the grey mud is hosed off. Anchors aweigh is reported. The jack is lowered, the colors shift, and *Macon* is underway.

The first lieutenant then reports a clear anchor, indicating that it is not fouled by any underwater object.

The forecastle crew continues to hose down the anchor and the eight-ton anchor is secured by pelican hooks as it enters the hawsepipe. The starboard anchor is drawn back up into the hawse pipe from its readiness position, and is secured. The jack staff is lowered and permission requested to secure the forecastle. With permission granted, the sailors line up inboard of the anchor chains

facing the bow where the ship's boatswain and first lieutenant are standing. A boatswain's mate pipes down the forecastle, the crew salutes and is dismissed.

A condition IV watch is normally stood while the ship is underway in peacetime. Adequate personnel for the safe and efficient operation of the ship are on duty, but no batteries are manned except as required by the training schedule. Material Condition Yoke, modified for access during daylight hours, is set and complete surface and horizon lookout coverage is available on a section watch basis. CIC is manned to cover all electronic guards and provide continuous surface and air plots.

WHEN *Macon* is on the high seas, the pilot house and open bridge will be occupied by the officer of the



Signalman

deck and the junior officers of the watch. From the deck gang comes a quartermaster of the watch, a steersman, a messenger, bugler, boatswain's mate of the watch, and a Planned Position Indicator operator and talker.

The quartermaster from N Division supervises the man on the wheel and reports to the OOD any changes in weather, temperature and barometer readings observed. He also maintains a call book, keeps track of shipping movements around the cruiser, and maintains the quartermaster's notebook and data sheet of the ship's log.

The Boatswain's Mate of the Watch is also on the bridge aiding the OOD in carrying out the ship's routine.

A man from N Division is stationed in the steering engineroom. A repairman and an electrician's mate from



Operations Officer

the Engineering Department keeps him company.

On deck will be four lookouts, supplemented when steaming in fog, by two fog lookouts from the 6th and 7th Divisions.

Port and starboard life-buoy watches are supplied by the same divisions, while the 4th and 5th provide the coxswain and bowhook for the cruiser's life boat.

The Signal Bridge, Radio Central, and Radio Two (see stories on pages 38 and 39) are manned. Down in CIC, radarmen are on watch. The rest of the underway watches are stood in the engineering spaces and damage control central.

In this organization, the officer of the deck is in charge of the ship by virtue of authority delegated to him by the captain. To outline all his duties would require more space than is available but you might briefly say that he is the officer responsible to the CO for the proper operation of the ship. CIC, engineering and communications watch officers report to him, supplying him with information which will affect the maneuvering and safe navigation of the ship.

Returning to port, the procedure is reversed with the Special Sea Detail going to stations 30 minutes before entering port. The anchors are prepared for letting go, the quarterdeck watch set, and the crew goes to quarters. When the anchor is let go, the bugler sounds one long blast. The boat booms and accommodation ladders are rigged out, the colors shifted smartly.

The in port watch is set.

—William Prosser, JOC, USN.

Assistant Navigator





heart are her four firerooms, in which the boilers and their operating stations are located, and her forward and after enginerooms, each containing two of her huge, geared turbines, plus an array of controls, gauges and machinery so bewildering that it takes years before a mere man can completely understand it. Out of these engines come 120,000 horsepower—enough to send the long, lean man o' war slicing through the blue sea at 32 knots or so when she really wants to strut her stuff.

Keeping *Macon's* heartbeat strong and steady is the Number One job of her Engineering Department—but it is far from being Engineering's only function. In addition, some of the men in Engineering may be called upon to work almost any-

THE MEN BELOW MAKE

DOWN IN *Macon's* vitals—at the starting point for the miles of pipes and wires that wind in endless convolutions through her long gray body—lies the mighty heart that pumps life and energy to the entire ship.

Here, the four boilers and four main engines that power the ship's movements are made to do the bidding of men who are dwarfed by the size and strength of their giant fire-eating slaves. Here, where sweat

is part of the uniform of the day regardless of climate or season, is the valve-studded, dial-eyed machinery that produces steam, electricity and compressed air for all sorts of uses all over the ship. And, here too are the distilling units which turn thousands of gallons of ocean into fresh water every day to meet the never-ending demands of the ship's boilers and her more than 1200 men.

The principal chambers of *Macon's*

where in the ship—from eyes to fantail and trucks to bilges. If a bulb burns out in a yardarm blinker light, an electrician from Engineering climbs up to replace it. If the drinking water develops an odd taste it's up to Engineering to find out what the trouble is. And, when the hydraulic system in a barber chair conks out, the barber depends on the Engineers to get it working right again.

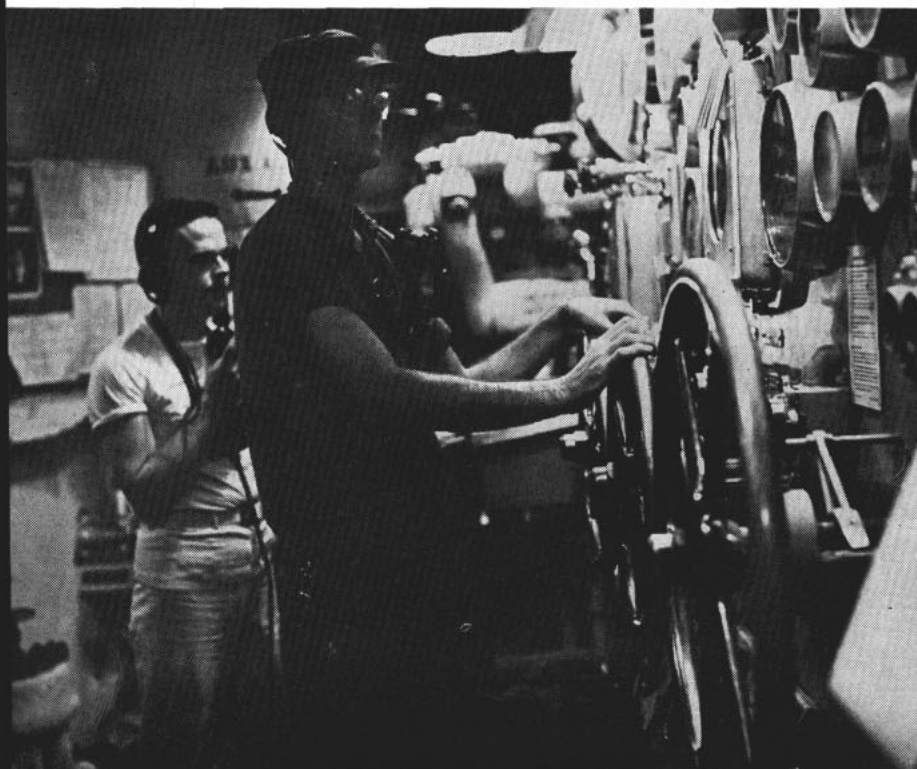
BECAUSE IT takes a lot of people to do all the work the Engineers must do, more than 300 of *Macon's* officers and enlisted men—roughly one-fourth of her crew—are assigned to this department. And, because it takes a variety of skills to do that work there's quite an assortment of rates among the Engineers—machinist's mates, enginemen, machinery repairmen, boilermen, electrician's mates, interior communications electricians, metalsmiths, pipe fitters and damage controlmen, plus of course, the all-important firemen.

Macon depends on these men in many ways, for they:

- Operate, maintain and repair the main propulsion plant.
- Furnish the ship all her power, light, ventilation, heat, refrigeration, compressed air and water.
- Provide and maintain the ship's interior communications.
- Repair the hull and hull fittings.
- Keep the hull, machinery and

ALL HANDS

MACON'S HEART—W. Lane, MMFN, mans No. 1 throttle board during GQ. D. Reynolds, YN3, serves as talker to bridge on board *USS Macon* (CA 132).



electrical system in battle-ready condition.

- Minimize the effects of damage or casualty and restore maximum seaworthiness, power and maneuverability in case of ship control casualty, hull damage, fire or flooding.

- Serve in the Rescue and Assistance Party, Repair Parties and Securing and Salvage Detail.

- Handle the stowage of fuels and lubricants not assigned to other departments.

- Operate, maintain and repair boat machinery.

THE ENGINEERS also do paperwork, such as maintaining the Engineering Log, Engineer's Bell Book, master Current Ship's Maintenance Project, Machinery History and various operating maintenance records.

HER GO

The Engineering Log and Engineer's Bell Book are both official, legal records which may be used in any military or civilian court as final proof of any action taken in or by the ship, and as evidence for or against any officer or enlisted man of the ship's crew who may be brought before the court or board. The Log shows such data as the average hourly speed in revolutions and knots; total engine miles steamed per day; all major speed changes; draft and displacement; and fuel, water and lubricating oil on hand, received and expended. The Bell Book is a record of all "bells," signals and orders received regarding movement of the ship's propellers. Obviously, these records can come in mighty handy in case of a collision.

The master Current Ship's Maintenance Project lists outstanding repairs and alterations, while the Machinery History is a record of tests, inspections and facts about specific pieces of machinery and the operating maintenance records include various periodic check-off lists.

Macon's Engineering Department is organized along the same standard lines found in most combatant ships—with the Engineer Officer at the top and a Main Propulsion Assistant, Electrical Officer and Damage Control Assistant to help share his responsibilities.

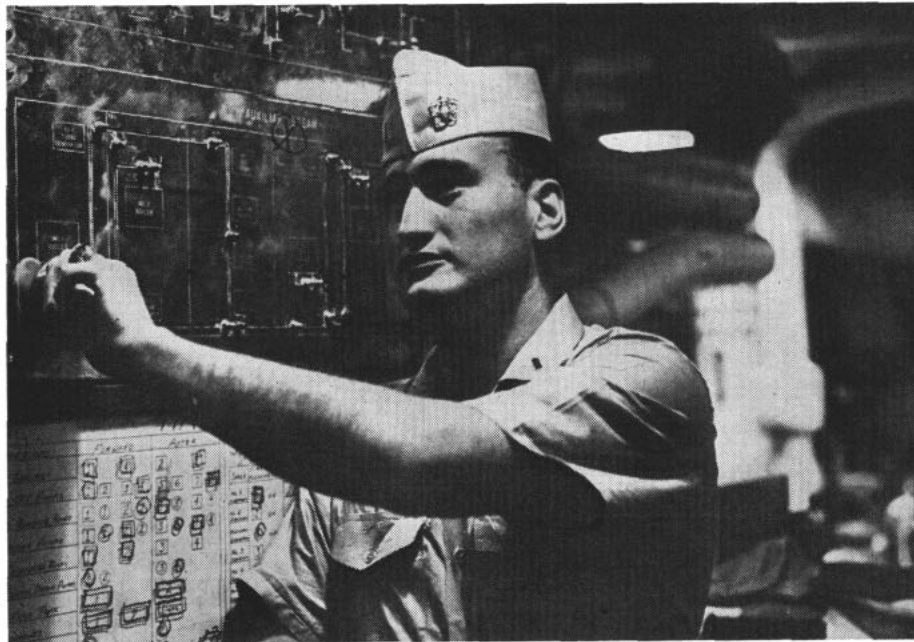
Below these three assistants in the chain of command (except in the case of the Electrical Officer) are

the division officers and their WO technical assistants, and below them are the division chiefs. The B (Boilers) and M (Main Engines) Division Officers report to the Main Propulsion Assistant. The A (Auxiliaries) and R (Repair) Division Officers report to the DC Assistant, and the Electrical Officer doubles as E Division Officer and as an assistant to the Engineer Officer.

KEEPING A CRUISER'S Engineering Department running smoothly is enough to give anyone headaches, but there are also other aspects to the Engineer Officer's duties. For in-

machinist's mates and firemen. About two-thirds of these men are assigned to the ship's four fireroom gangs and the rest are members of the generator gang, oil gang or machinery repair party.

Each of the fireroom gangs consists of from 12 to 15 boilermen and firemen, and is headed by a BT1 or Chief. The generator gang, headed by an MMC, is made up of 17 machinist's mates and firemen. The oil gang, with a BT1 as oil king, includes eight boilermen and firemen. And, the machinery repair party, which repairs boilers, pumps



KEEPING TABS on maze of valves, ENS S. Missailidis stands by main control peg board used to indicate the valves that are open and being used.

stance: Acting as technical assistant to the Exec in carrying out the ship's ABC defense program; keeping the skipper informed of the condition of the hull and machinery so that he knows the operational capabilities and limitations of his ship at all times; coordinating shipyard work for all departments and handling correspondence or communications about alterations or repairs to the hull and installed equipment.

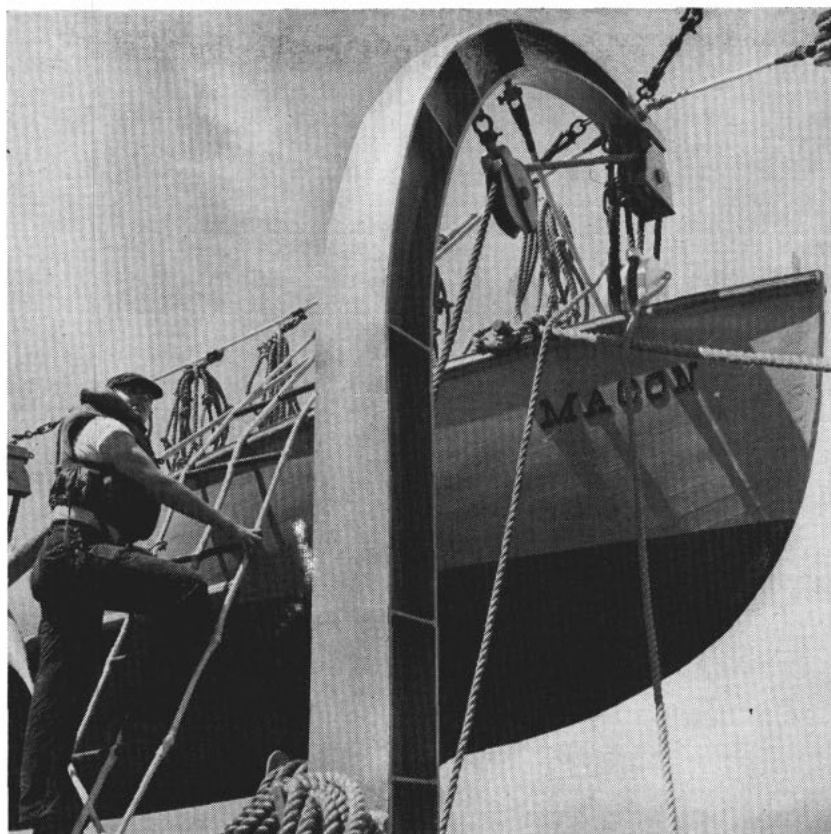
Macon's Engineer Officer, CDR William T. Spellman, has been in that billet on board CA 132 for more than a year now, yet he'd still be the first to admit that he doesn't know absolutely everything there is to know about marine engineering.

Manpowerwise, *Macon's* B Division is the largest in Engineering. Besides the Division Officer and Chief, it is made up of 83 boilermen,

and associated machinery, is a two-man outfit—one BTC and one BT1. Except for the oil gang—which has its headquarters in the oil and water shack—B Division spends almost all of its working time in the firerooms.

Under normal peacetime cruising conditions, there are at least eight men stationed in each steaming fireroom when *Macon* is underway. (And, in the tropics, where the temperature in the engineering spaces seems to stick somewhere between 110 and 120 degrees, the firerooms are steaming in more than one sense.)

AS A RULE, the petty officer of the watch in a fireroom is a BT1 or Chief. Since he's responsible for the operation of all machinery and equipment, you'll find him always on the go, listening and watching for signs of trouble and seeing to it that:



TOPSIDE—Engineers are usually thought of as a below-deck outfit, but duties take them all over ship. Here, G. Perrone, EM2, climbs up to check batteries.

All the watch stations are properly manned; the right temperatures and pressures are maintained; the water level in the boiler is where it should be; and combustion requirements are being met.

Those are only some of his duties. Among the others are: Helping out at any station where he's needed; seeing that the boiler tubes are blown once a watch to keep the firesides clean; supervising the lighting off, operation and securing of boilers; keeping the chief of the engineroom watch and the engineering officer of the watch posted on operating conditions in the firerooms; and making sure all safety precautions are being observed.

And, that's not all, for in *Macon*, the PO of the watch also doubles as blowerman, operating the forced draft blowers that supply air for combustion. This means that in addition to his other tasks, he has to keep an eye on the smoke periscope and furnace peepholes to make sure, from the looks of the smoke and flames, that the fire is getting the right amount of air. (The smoke periscope is a device which enables the blowerman to see the smoke inside the up-

take as it passes before a light bulb.)

All this might make it sound as if the PO of the watch does enough to keep the fireroom going single-handed, but there is still plenty of work for the seven other men on the watch with him. One of these seven is needed to take care of the auxiliaries on the upper level of the fireroom and another has to take care of the lower-level auxiliaries. Another is stationed at the generators; an electrician mans the distribution board which shows where the power from the generators is going. The three others on watch are the checkman and two burnermen.

IT ISN'T HARD to figure out that the men on the generators and auxiliaries (pumps, air compressors and the like) make the adjustments and handle the many odds and ends of maintenance involved in the operation of their machinery. The electrician, from E Division, makes sure the proper loads are being carried on various circuits and that the generators are working right electrically.

The checkman has only one job—maintaining the proper water level in the boiler—and this demands his full attention at all times, for a little

carelessness on his part could mean a boiler casualty aboard *USS Macon*. While the boiler is steaming his main concerns are the water gage glass, which indicates the water level of the boiler, and the feed check valve, which regulates the amount of water fed to the boiler.

Learning to read the gage glass is a tricky proposition, because it depends not only on the height of the water in the glass, but also on the size and number of the steam bubbles in it. When the firing rate of the boiler is stepped up the water level rises because there are more and larger bubbles in the water. At the same time, however, the evaporation rate is also increased, meaning the checkman must feed more water to the boiler even though the water level has risen momentarily. On the other hand, when the firing rate is decreased, there are fewer and smaller bubbles in the water, which causes the level to drop. But, since there is also a decrease in evaporation, the checkman must know that this is the time to cut down on the water.

In ships with more modern equipment than *Macon*, the checkman's job isn't quite so important, because of the installation of feed water regulators which work more or less automatically.

MACON'S BOILERS are the controlled superheat type. They each have two furnaces—one on the superheat side of the boiler and the other on the saturated side. A burnerman is needed on each side to cut burners in and out and adjust the oil pressure.

Essentially, the saturated-side furnace produces the heat which generates saturated steam ("wet" steam which cannot be heated above the temperature of the water from which it was generated) in the steam drum. Some of this steam goes from the drum into auxiliary systems. The rest goes to the superheater-side furnace where it is converted into dry, superheated steam which causes less wear on the propulsion machinery than wet steam.

The main job of the burnerman on the saturated side is to keep steam pressure at the required point, while the burnerman on the superheat side is chiefly interested in keeping the superheater outlet temperature where it belongs.

Next to the four fireroom gangs, *Macon's* generator gang is the big-

gest section of her B Division. Its job, as has already been stated in part, is to operate, maintain and repair the generators which supply the ship with electricity, the feed pumps that keep water flowing to the boilers and the air compressors for the high-, medium- and low-pressure air systems.

The high-pressure air is used for such purposes as gas ejection in the eight-inch gun turrets, starting the emergency diesel generators and supplying compressed air for the landing gear of *Macon's Regulus I* training missile. The medium-pressure air is used in places like the elevator for the missile and the gas ejection systems of the five-inch gun mounts. And, the low-pressure (ship's service) air system runs into almost every compartment of the ship for use in operating pneumatic tools, cleaning equipment, blowing out sea chests, air-testing compartments and the like.

A SHIP OF *Macon's* class uses about \$5500 worth of fuel oil to travel a thousand miles at a speed of 16 knots. The job of keeping track of all that oil is taken care of by the oil gang. Among the responsibilities of this outfit, which works out of a sort of seagoing chemical laboratory, are: Refueling operations; the storing and testing of fuel oil, boiler feed and ship's service water; and the maintenance of daily fuel oil, Diesel oil, lubricating oil and fresh water accounts. Its boss, the oil (and water) king, is responsible to the DC Assistant for maintaining *Macon* on an even keel and proper trim, since he's the man in charge of ballasting her fuel tanks as they are emptied.

Typical of what goes on in the oil lab are the alkalinity, salinity and hardness tests which the oil gang makes on water from the steaming boilers every day.

Based on the chemical reactions between acids and alkalies, these tests operate on about the same principle as the one you employed when you changed the color of litmus paper in your high school chemistry classes.

In the alkalinity test, a sample of water is drawn from the boiler and allowed to cool. The man running the test then puts some of the water in an open dish and adds two or three drops of phenolphthalein to it, which turns it pink. Next, he adds

a nitric acid solution drop-by-drop until the pink color disappears. From the amount of acid it took to neutralize the color he then calculates the degree of alkalinity of the water.

The salinity or chloride test determines the amount of dissolved salt in the boiler water. In this one a few drops of chloride indicator (diphenylcarbazonebromophenol blue, in case you like tongue-twisters) are added to a sample. This turns it blue-violet or red, depending on the degree of its alkalinity. After that, nitric acid is added a drop at a time until the sample turns pale yellow and mercuric nitrate solution is added until the water again becomes blue-violet. From the amount of mercuric nitrate it takes to do this the chloride content of the sample is then determined.

In the soap hardness test, part of a boiler water sample is poured in a bottle and a prepared soap solution is added to it. The bottle is then shaken vigorously until a heavy lather forms, and the container is laid on its side for five minutes. If the lather holds for that length of time it is said to have zero hardness. If it doesn't, more soap solution is added, and the degree of hardness is calculated from the amount of

soap required to get a lather that will hold.

FROM THESE TESTS the men of the oil gang can tell whether or not boiler compound should be added to the water and, if so, how much. One of the principal ingredients of Navy boiler compound is plain old cornstarch. The other elements are sodium compounds.

If it were possible to keep the boiler water chemically neutral, this would be ideal. However, with neutral water there is always danger that it might become acid and thereby cause general corrosion. On the other hand, if the water is too alkaline, it will cause the boiler tube metal to become furrowed or grooved. So, the oil and water gang tries to keep the boiler water just alkaline enough to prevent it from becoming acid, and at the same time, to keep it from becoming too alkaline.

The sodium chemicals in Navy boiler compound maintain the alkalinity of the boiler water. In addition, they act as water softeners, preventing the formation of scale, helping to remove whatever scale may be present in the water and converting scale-forming salts into relatively harmless sludges. The cornstarch lends fluidity to the sludge so that it doesn't pack in the water drums,

FOR THE RECORD—Men in engineroom keep close watch on all machinery. Here, CWO N. R. Barrett records information on engineroom status board.



reduces the tendency of the water to foam or prime (liberate steam in uneven spurts), and it may also act to reduce corrosion by maintaining a protective film on the metal surfaces.

While the men in *Macon's* oil gang and the other sections of her B Division are keeping her boilers boiling and her fireroom auxiliaries producing steam, air and electricity, CA 132's M Division is also hard at work.

This division is headed by a LTJG who has a chief machinist as his technical assistant and an MMC as division chief. It includes the machinist's mates and firemen who are members of *Macon's* forward and after engineroom gangs and her evaporator gang, plus the yeomen and seamen who work in the engineering office, or log room.

USUALLY, DURING A ROUTINE, peacetime steaming watch there are at least 11 men on duty in *Macon's* forward engineroom and seven in her after engineroom. Since Main Control is located in the forward space, the officer and junior officer of the watch are stationed there. So are the two men from the evaporator gang who operate and maintain the ship's fresh-water distilling plant.

The Engineering Officer of the Watch is responsible for:

- Prompt acknowledgement and execution of all orders from the Officer of the Deck.
- Getting authorization from the

Commanding Officer or OOD before the main engines are turned on.

- All prescribed tests, inspections, methods of operation and safety instructions.

- The maintenance of the Engineering Log, Engineer's Bell Book and other prescribed operating records.

- Supervision of the Damage Control watch and related patrols.

- Immediately informing the OOD and Engineer Officer of any actual or probable casualties to the machinery, boilers or auxiliaries which might affect the operation of the ship.

The EOOW is assisted by the junior engineering officer of the watch, whose stints in the engineroom are on-the-job training aimed at qualifying him as an EOOW.

The men who operate *Macon's* fresh-water distilling hold a special spot in the crew's esteem, for thanks to the efficiency of her evaporator gang, CA 132 has not had water hours for as far back as the Engineers can remember.

The ship has a full tank capacity of 71,102 gallons of drinking water and 59,999 gallons of boiler feed water. Her three distilling units can put out a total of 48,000 gallons a day when operating at full capacity. A single day's water expenditure at the maximum allowance rate, plus the 10,000 gallons required as make-up feed for the boilers is around 49,600 gallons, so a slight increase

in consumption, even with the evaporators in continual operation, would soon empty the ship's tanks. To help keep that from happening the latest figures on water consumption are issued every morning in the Plan of the Day, so that everyone on board knows when it's time to pay a little extra attention to water conservation.

Except for the two men from the evaporator gang and the officer and junior officer of the watch, who are all stationed in the forward engineroom, the watch organizations for both enginerooms are identical—a chief of the watch, two throttlemen, a messenger, a pumpman at the lube oil pumps, a man to handle the main condensate and feed booster pumps and someone to take care of the upper level auxiliaries.

THE CHIEF OF THE WATCH sees that all machinery and equipment are operating smoothly and that all engineroom stations are properly manned. Among his many duties are: Checking all bearing temperatures; see that the men under his supervision are attending to their duties; check the Engineroom Log and Bell Book for entries and signature; determine that temperatures, pressures and vacuums on various items of equipment are maintained as required; check the lube oil gages; enforce safety regulations; see that all signals from the bridge are promptly answered and carried out; and keep the OOW informed of all engineroom operations.

In each of *Macon's* enginerooms there are two throttleboards. The main job of the men stationed at them is to give the bridge the speed it calls for via the engine order telegraph, or at times, propeller shaft revolution indicator. This the throttlemen do by opening or closing the throttle valve controlling the supply of steam to the main turbines and by taking care of the gland seal steam and various other valves. (The gland sealing system keeps steam from getting out of the turbine casing and stops air from getting into it.) The throttlemen must have plenty of skill and experience, for keeping the speed where it is supposed to be is a pretty tricky business, especially when the ship is maneuvering or in rough water.

Even the messenger's job is a technical one on an engineroom watch. Although he gets stuck with wiping up oil, calling the relief watch and other odd-jobs, he also

TRICKY JOB—Boilerman third class J. Medino watches the gauge glass indicating the boiler water level as he regulates the feed check valve.



has to know how to handle such tasks as checking bearings for oil leaks, inspecting the lube oil for foreign matter and seeing that the proper oil level is maintained in the bearing sumps.

The pumpman, working on the lower level, must be a technician too. He must: Open and close pump valves in the correct sequence; warm up the main circulating, lube oil and other pumps; check on lubrication and lube oil pressures; get standby pumps ready for GQ; make minor repairs to the lower level machinery; remove and clean lube oil strainers; repack pumps and valves; replace leaky gaskets; and of course, inform the chief of the watch of any signs of trouble.

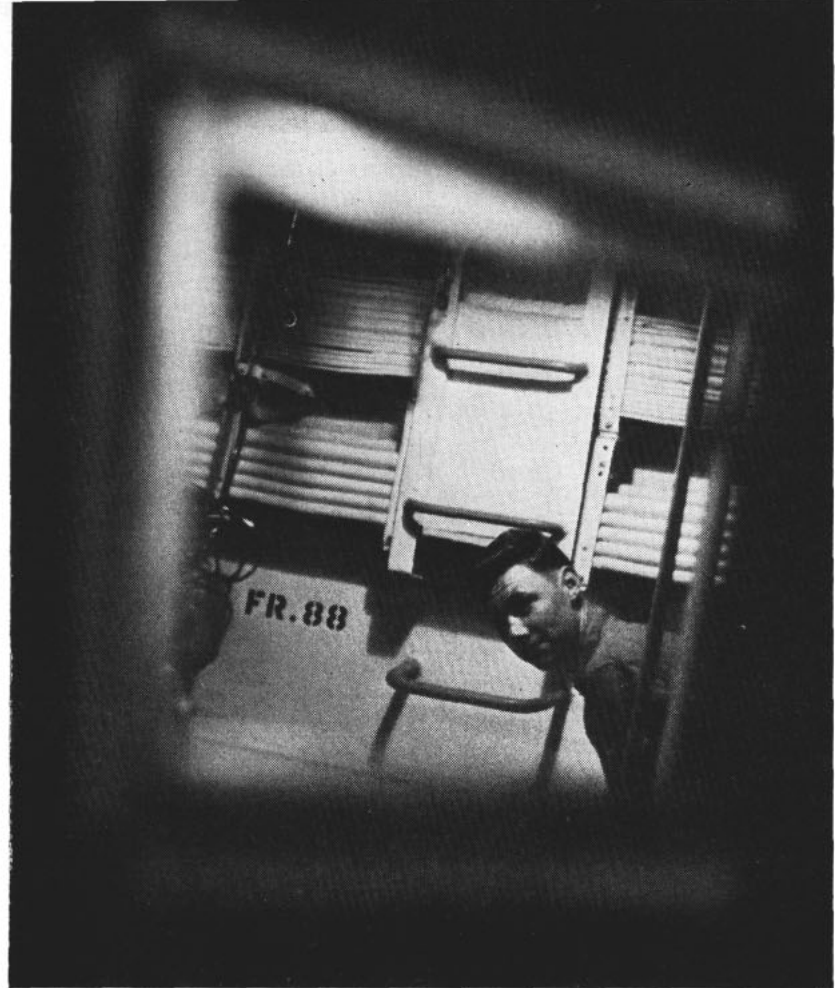
Helping him is the man stationed at the main condensate and feed booster pumps, who: Reads dials, regulates valves and handles the maintenance on machinery which has to do with the flow of feed-water back to the boiler after it's been used in the turbine as steam.

THE MAN ASSIGNED to the upper level auxiliaries checks gages and adjusts valves on equipment ranging from the de-aerating feed tank (which uses a steam jet to figuratively "scrub" the feed water free of air) to the lube oil cooler, which lowers the temperature of the lube oil so that it helps to cool the machinery.

This is only a very brief rundown on the work of the engineroom and evaporator gangs. To go into all the intricacies of a power plant as big and complex as *Macon's* would take volumes.

Another important part of M Division still to be covered is the log room. Located near main control, this is the office where two YN3s and three seamen take care of watch bills and liberty lists for the Engineering Department, some 5000 blueprints for every part of the ship and all sorts of correspondence, publications, operating logs, records and reports. At times the correspondence load really gets heavy here, for the Engineering Department coordinates shipyard work for all departments and handles all the letters and communications dealing with alterations or repairs to the hull and installed equipment.

Typical of the records kept here are the Machinery History cards, maintained for each unit of machinery under the cognizance of the



REFLECTION—K. Nylund, MMFN, is reflected in "rear-view mirror" which enables throttleman to watch machinery without leaving throttle board.

engineer officer. These cards carry such information as the location of the machine, the file numbers for the drawings of it, the location of repair parts and data on tests, inspections, repairs, alterations and damage to it.

THE LOG ROOM, like the rest of *Macon*, gets its electricity through the courtesy of E Division, which is responsible for operating, maintaining and repairing electrical equipment and systems throughout the ship.

This is the outfit that replaces burnt out bulbs high up on the superstructure, maintains the ship's interior communications, mans the distribution boards in the firerooms, operates searchlights and stands watches on electrical equipment practically anywhere—from after steering to the anchor windlass. In short, it covers *Macon's* electrical system from stem to stern and top to bottom.

The division is headed by a LTJG, who is assisted by an ensign, a warrant electrician and the division chief, an ICC. The two sections of

the division are the electrical shop and the IC gang.

Macon's electricians certainly can't complain of a lack of variety in the work of the electrical shop, which can range from hooking up shore power to the main distribution board when the ship is in port, to fixing the electrical system in one of the ship's boats. In between, it must:

- Overhaul fans, power tools, portable lights and appliances.
- Wind coils.
- Detect shorts in lighting circuits, power distribution cables, motors and the degaussing system.

• And, prepare Machinery Histories on maintenance, minor repairs and reconditioning for motors, generators, transformers, controllers and the like.

ACCORDING TO SOME of the men of *Macon* the most important thing the IC gang does is to run the nightly movies. Of course, this isn't quite true, for these specialists operate, maintain and repair such important gear as: The sound-powered and ship's service telephones; ship-board announcing systems; the en-

gine order telegraph; call bells for the wardroom and captain's cabin; the engine revolution, course and steering telegraphs; the shaft revolution and rudder angle indicators; the gyro compass and gyro repeaters; and the underwater log. In combat, the coordination of damage control activity, the maneuvering of the ship and many other vital functions would hinge on the efficiency of *Macon's* interior communications system and the men who maintain it.

As in other ships, damage control on board *Macon* is the common responsibility of all hands. However, the Damage Control Assistant bears a larger share of that responsibility than anyone else, since it's up to him to see that CA 132's DC organization is an effective one and to supervise all repairs to hull and machinery which aren't specifically assigned to other departments.

To make everyone aware of the fact that *Macon's* ability to dish out punishment in combat would depend in large part of her ability to take it, the crew gets plenty of training in damage control. Each division has its own damage control petty officer, who attends classes held regularly by the DC Assistant, and then passes on what he has learned to the other men of his division. This training is put to the test in frequent DC drills.

During these drills six repair parties are stationed in locations that give them coverage of the entire

ship. If *Macon* were hit, the men in these parties would take care of such vital functions as shoring up sagging decks, patching holes in the hull, pumping out flooded compartments, fighting fires and making emergency repairs to the ammunition supply system, ventilating ducts, air lines, communication systems and the like. In an atomic, biological or chemical attack, these parties would also take care of decontamination.

For five of the repair parties there would be primary missions. For the sixth, which is made up mostly of machinist's mates and boilermen, the primary tasks are to repair or isolate damage to the main propulsion machinery, boilers and auxiliaries, and to provide relief crews for the machinery spaces.

THE KEYSTONE of the damage control organization is DC central, the nerve center where reports from the repair parties are collected and evaluated. In this quiet, air-conditioned room, which would be one of the hardest spots on the ship for an enemy to hit, the sites and extent of damage are plotted on various charts and peg boards to give the DC Assistant an over-all picture of the way things are going so that he knows where to send the repair parties to do the most good.

Between drills DC Central maintains security watches around the clock to report on the ship's security

condition once an hour; sound voids and cofferdams; inspect lower deck spaces for fire, fire hazards, flooding or other unusual conditions; keep an eye on the high temperature alarm board; and otherwise make sure all's well in *Macon*. The watch also takes care of keeping up the watertight closure log, the log of condition Yoke reports and the fuel oil tank status board.

The repair of battle damage is only part of the picture of the work done under *Macon's* DC Assistant, for there's also plenty to be done during normal peacetime routine to keep the ship and her equipment running smoothly and to repair the effects of everyday wear and tear.

A major share of this work is done by the A (Auxiliaries) and R (Repair) Divisions, each headed by an ensign who has a warrant officer as his technical assistant—a chief machinist in the case of A Division and a chief ship repair technician for R Division.

Besides the division chief, who is an MMC, the enlisted men of A Division include machinery repairmen, machinist's mates, enginemen and firemen. The unit is broken down into four sections—machine shop, boat and diesel gang, "steam heat" and refrigeration.

THE MACHINE SHOP, manned by two machinery repairmen and six firemen, can turn out replacement parts ranging from worm gears to nameplates with its lathes, mechanical hacksaws, drillpresses and other power tools.

The boat and diesel gang, consisting of seven enginemen and seven firemen, operates and maintains the emergency diesel generators, repairs and services the ship's motor vehicles, fuels and inspects the motors of *Macon's* little fleet of small craft and, generally speaking, takes care of just about anything aboard that has an internal combustion engine.

As one engineman put it: "If a liberty boat had motor trouble, we'd be the guys who'd get the blame; but when it's purring like a kitten everybody forgets that we inspect it and baby it every morning we're in port in order to keep it that way."

The six machinist's mates and five firemen in "steam heat" probably deal with about as wide an assortment of machinery as you could dream up on a single ship—handling routine maintenance and making repairs on everything from the presses

ALWAYS READY—Damage control is one of many jobs of Group VII. Here, S. B. Smith, EN1, R. A. Kahley, DC2, W. A. Graver, FA, check handy billy.



ALL HANDS

in the tailor shop to the after steering machinery. In between there are such varied items as the ship's heating and hot water systems; the vegetable cutters, steam tables and dough mixers in the galley; scullery machines; anchor windlasses, hydraulic valves on the firemain; and presses, extractors, cuff and collar machines, dryers and washing machines in the laundry. To make things complete, this is also the outfit that keeps the hydraulic systems of the ship's barber chairs working properly.

THE DUTIES of *Macon's* refrigeration gang may not involve the variety of equipment that steam heat's work does, but they do take in a lot of territory. As its name implies, the refrigeration gang, composed of seven machinist's mates and seven firemen, sees to it that all air conditioning and refrigeration equipment on the ship is kept in good working order. This takes in such items as the reefers in the crew's galley, chief's mess and wardroom; cold storage rooms; ice cream machines for the geedunk stand; ice-making machines and the air conditioning in sick bay, the forward and after magazines, crew's lounge, CIC, flag plot, DC Central and after steering.

Macon's R Division, with a DCC for its chief, also takes in a variety of functions. It includes the pipe, carpenter, metal and DC shops.

The number of men in the pipe shop (11 FPs and three firemen) is a pretty good indication that there's a lot of piping on CA 132—steam pipe's, hot and cold water pipes, railings, radar conduits, engine- and firemen piping and the plastic piping used for atomic washdown—to name just a few. There's also a lot of work to be done on that pipe, and involved in that work are such jobs as: High- and low-pressure pipe fitting; the layout, cutting, fitting, welding, installation and maintenance of pipes and piping systems; forming, soldering, brazing and installing copper and brass pipes and tubing; and the installation, maintenance and repair of plumbing equipment and fixtures. In addition, there's the unofficial job of thinking up descriptive terms for the characters who use plastic piping as a footrest during their fantail bull sessions.

ALTHOUGH THE missile-packing *Macon* is a long way from the wooden-ship Navy she still needs a carpenter shop. Manned by one



GEAR CARE—Engineroom duty includes keeping ship's machinery in top shape. Number one reduction gear housing of *Macon* receives wash down.

damage controlman and one fireman, this busy place handles repairs to the ship's boats and wooden decks; makes damage control shoring, plugs and wedges; builds cabinets, boxes, packing cases, platforms and staging and chutes for the off-loading of ammunition; shores up powder bags; and makes such miscellaneous items as bulletin and status boards.

Of course, *Macon* contains more metal than she does wood, so her metal shop is nearly 10 times the size of her carpenter shop. With an FPC as foreman, it includes 16 metalsmiths and three firemen. These are the men called on for such projects as relocating liferaft baskets,

changing boat skids around, putting in new scupper lips, building a new movie projection booth or straightening out damaged hatches and doors. For these men, welding, soldering, brazing, riveting and blacksmithing are all in a day's work, since they have to be able to make anything from a major hull repair to a bracket for a fire extinguisher.

All the men of A and R Divisions have an important place in the damage control picture. However, there are none of them who tackle damage control on the same full-time basis as the DC shop, operated by a DCC, four whitehat DCs and six firemen. For them, everyday routine consists of such things as testing doors and hatches, checking closure classifications, testing firefighting equipment and submersible pumps—in other words, checking and double-checking to make sure *uss Macon* will be ready whenever trouble may strike.

As one of the DCs explained: "It's like the book says. About 90 per cent of damage control is preventive—the precautions we take to cut the chances of a casualty occurring and to keep the ship going no matter what goes wrong."

In essence, you might call that the motto of *Macon's* entire Engineering Department—"to keep the ship going no matter what goes wrong."
—Jerry Wolff.



MAN WITH POWER—The engineer officer of *USS Macon* is responsible for operation of ship's 'power plant.'

GEARED FOR AN ATOMIC

THERE IS NOT a living soul in sight as the ship cuts through the water at a brisk 22 knots. No one walks the deck; no one can be seen on the bridge. Only the 5-inch mounts train as they follow an invisible air target.

This is not a ghost ship. It is the heavy cruiser *Macon* practicing maneuvers which will safeguard her in the event of a nearby nuclear explosion.

In this battle exercise *Macon* and her crew are practicing the techniques they would use to counteract the effects of an underwater burst. Of course different methods of safeguarding lives and equipment would be used if *Macon* was subjected to the air burst of a nuclear weapon,

the type of burst that authorities feel would most likely be directed against a task force on the open sea. But Navymen must be trained for every possible situation that might occur in combat. This particular exercise provided training procedures for an underwater explosion.

The hypothetical atomic bomb of an undisclosed size exploded some distance away from *Macon*, minutes ago, in the center of an imaginary task force. At that time, all hands were at their battle stations, wearing red tags simulating dosimeters — devices that indicate the amount of radiation absorbed by the wearer.

With the first warning, a sounding of the chemical attack alarm and a

passing of the word, "ATOMIC ATTACK, ATOMIC ATTACK, Underwater Burst," the sailors grabbed hold of nearby bulkheads, splinter shields, and stanchions and bent their knees slightly to absorb the shock effect of the bomb. The men on one mount were told their legs could have been broken depending on the size and distance of the bomb, because they squatted down, leaving no room for their legs to absorb the shock.

Because of its distance from the center of the explosion, *Macon* was to suffer relatively little damage.

For several minutes after the shock wave had passed, however, the crew continued to fight off enemy attackers with all the ship's guns. As the base surge neared the ship, its accompanying mist and rain-like fallout carrying radioactive materials, the crew retreated behind bulkheads into *Macon's* gas-tight envelope.

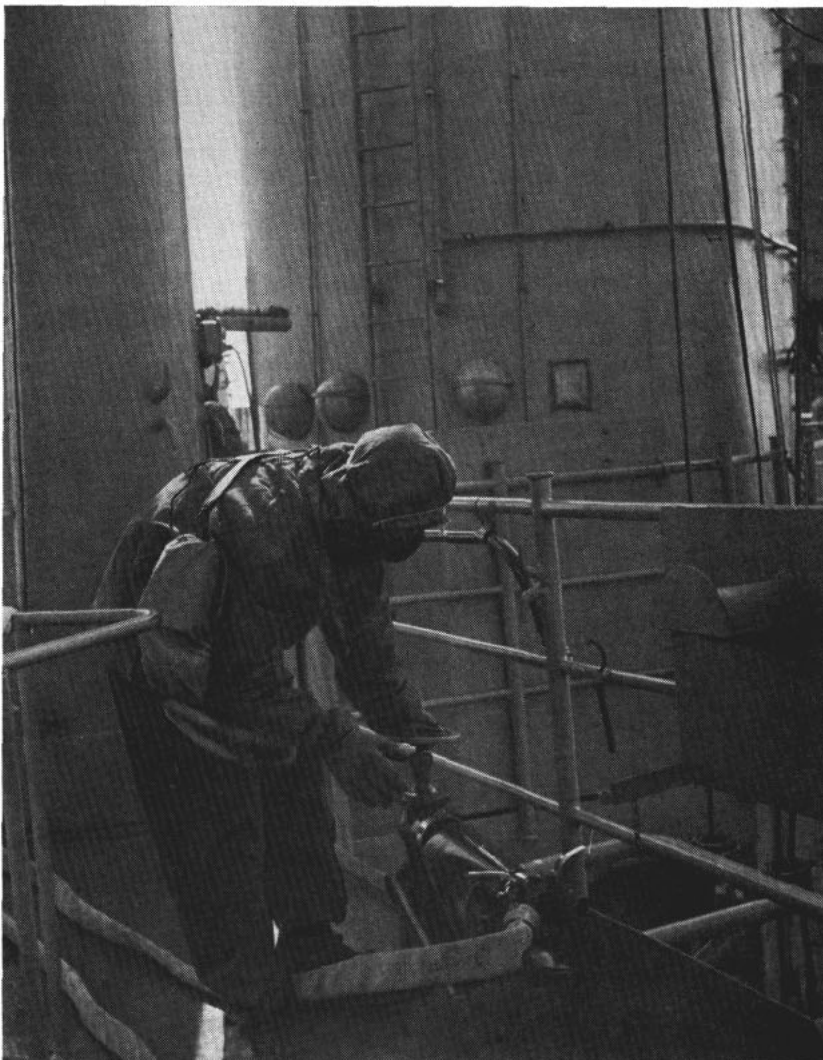
But the fight wasn't over. Even as the radioactive material was falling on the exposed decks and penetrating the Navy-gray paint, the 5-inch battery continued to fire along with ship's main battery. To an extent the men inside the turrets and enclosed mounts are protected from the radioactive fallout by flametight compartmentation and water-tight hatches.

Bridge and fire control personnel, 3-inch gun crews, and the rest of *Macon's* crew received protection from the thick steel bulkheads and sealed hatches against the effects of radiation. The setting of Condition Zebra and shutting down of the ventilating and air conditioning systems is effective in preventing the entry of radioactive particles into the ship.

Up in forward control, the slamming of the thick hatch sealed about 12 men inside the steel shelter. The mouthpiece on the sound-powered phones used by the antiaircraft control officer failed. He pulled the headset off and used one earphone as a mouthpiece, thus keeping in touch with his mounts that were still manned.

This quick action became important a few minutes later, when theoretical enemy aircraft which had been swarming all around, began to approach the cruiser. The report came in that one was at 35,000

BIG SQUIRT—Members of USS *Macon's* decontamination team starts to hose down the cruiser to clean it of radioactivity during simulated atomic attack.



ATTACK

yards. "Out of range, hold your fire," ordered the Gunnery Officer. As the range continued to diminish, the fire control systems locked on to the approaching plane and guns came to bear.

"Range 18,000 yards, bearing 135 degrees." Mounts 51, 53, and 55 opened a concentrated fire, destroying the enemy. Of course the plane was imaginary, but the fire control people and the gunner's mates went through all the necessary motions short of actual firing.

Down on the main deck hatches opened momentarily and men wearing dark green waterproof clothing and protective masks slipped out to begin the rough decontamination of the ship. Using hoses and brushes they began working from the top, down; and forward, aft. They concentrated on the spots that monitoring crews with Geiger counters and other radiation detection devices had indicated as being hot or radioactive.

The saltwater hoses were pulled around rapidly as the teams worked to reduce the radioactivity to a level where the crews of the 3-in. 50s could return to their mounts and take up the fight. As soon as a mount was decontaminated the monitoring crews returned to check the radioactive level. If the mount were still radioactive the decontamination teams would return for more washing.

The first 3-inch mount to be remanned was 31. The gun crew returned 17 minutes after the blast with a "safestay" time of five hours. In other words the crew could stay on the mount for five hours before receiving the maximum allowable (but still safe) dose of radiation.

At plus 18, mounts 36 and 37 were passed as all clear and remanned. Two minutes later 34 was all clear and 35 was passed with a safestay time of 3 and-a-half-hours. Thirty-two and 33 were passed as all clear and then all forward air defense stations were manned.

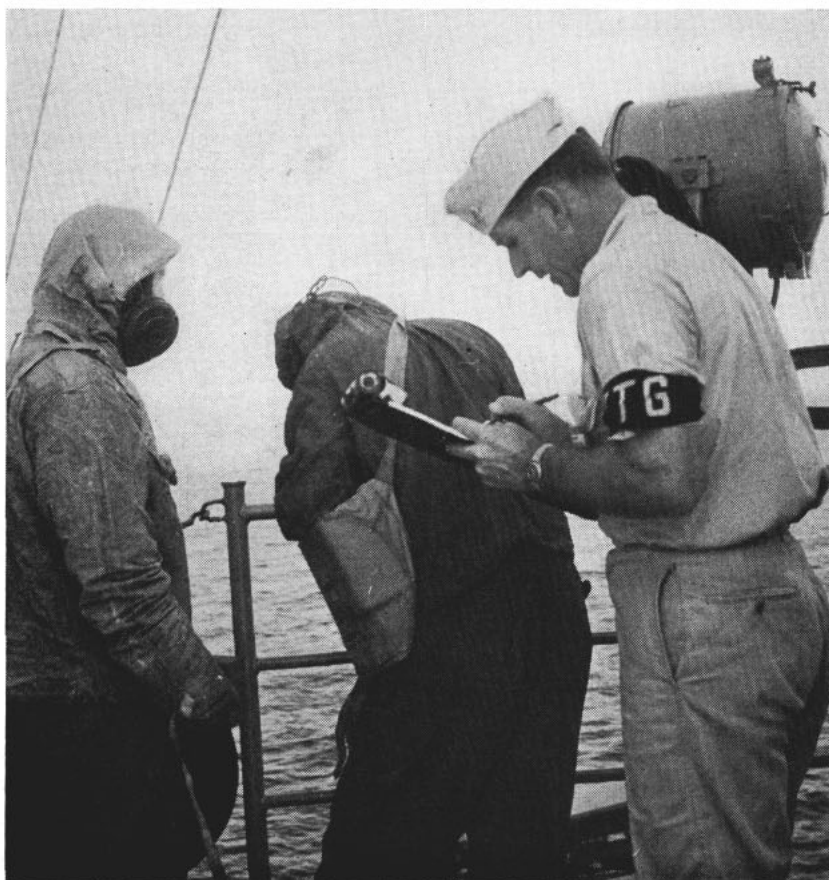
In approximately 30 minutes all guns were back in action. The nuclear explosion had been weathered. The ship was back in action.

But the training would go on. Still to come was the indoctrination of the crew in the event of an air explosion of a nuclear weapon.

—William Prosser, JOC USN.



HOT JOB—Decontamination team stands by for practice in atomic defense of their ship. Below: Member of Fleet Training Command checks DC's work.





GRAND STAND SEAT — ENS S. L. Lieberman and W. E. Springer, SN, see *Regulus* flight from fire control director.



Count Down: Cruisermen Fire Regulus

WHEN *Regulus I* is fired from USS *Macon* (CA 132) the event turns out to be an all-hands job. At the present time that means 10 per cent working and about 90 per cent watching. And it will be some time before the excitement of the firing wears off.

Long before this surface-to-surface missile is ready to fire it is hoisted aboard the fantail by crane, placed on a cradle and taken below on an elevator where a small group of experts give it a thorough going-over. A scheduled firing brings it on deck.

It gets a last-minute check and is run out on rails to one side of the ship. It's raised to the firing position and remains poised until the final count-down.

The 30-foot long *Regulus I* resembles a conventional swept-wing jet fighter, flies about the speed of sound and has a range of about 500 miles. It's powered by a turbojet engine and guided by an electronic "brain." Two jet pods boost the take-off.

The recoverable missile is equipped with tricycle landing gear and para-

chute braking so it can land undamaged and be used again.

Two jet planes circle the area waiting until the missile is air-borne so they can guide it to a safe landing. The count-down comes over the loudspeakers, "Minus three minutes to firing time." Then it's, "Minus two minutes . . ." At the sound of, "Minus one minute . . .," those who have previously witnessed these guided missile firings stuff their fingers in their ears.

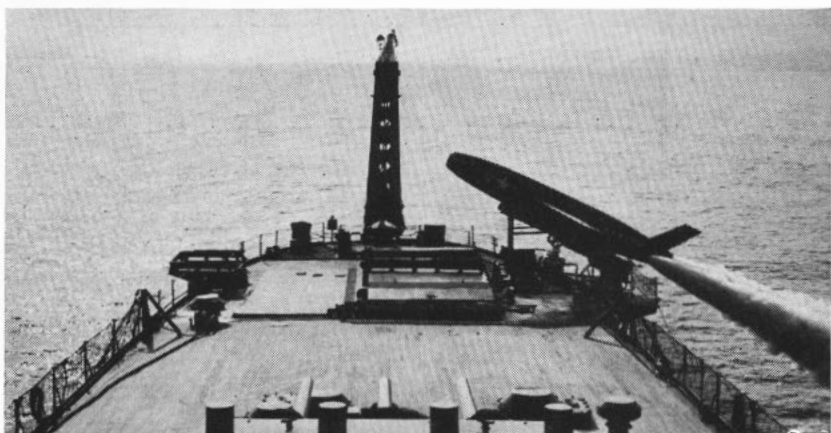
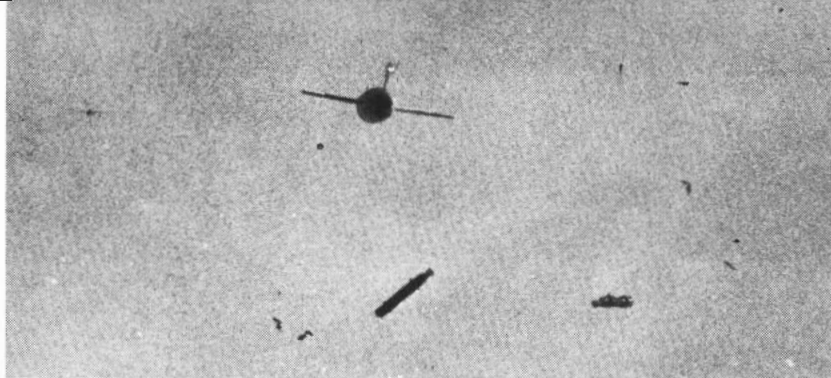
In the background you can hear the whine of the missile's engine. It

'RIG FOR REGULUS' — Fantail crane is used for missile's placement. Rt: Crew awaits *Regulus* blast off.





REGULUS MEN set up 'bird' for flight.



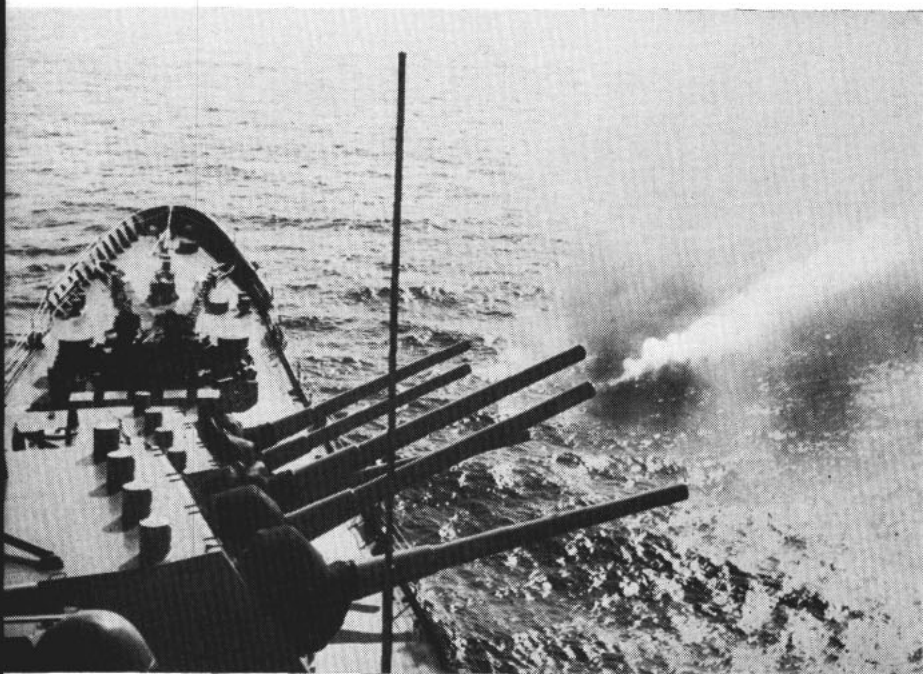
increases. Then the jet pods ignite. Seconds later, with *Macon's* CIC in control, it leaves the platform in a steady climb; the crescendo of sound builds up to a scream—then there is no sound.

The two stand-by planes swoop down over the ship and follow *Regulus*; one on either side. A short way out from the ship the two jet pods are dropped and the missile is on its way. Now the planes have it under control and will land it safely. Then it will be returned to *Macon* and the procedure repeated at another time.

MISSILE SOARS skyward from fantail dropping JATOS while cruisermen steady against the launching shock.



Guided Missile



'PREPARE FOR SURFACE

IT IS 0725. Guantanamo Bay, Cuba, lies 90 minutes of 22-knot steaming astern of USS *Macon*. In five minutes General Quarters will sound.

Today's Plan of the Day calls for a surface shoot by both the 8- and 5-inch guns, and a firing exercise by the anti-aircraft battery. With this published warning *Macon's* crew move to their battle stations a little in advance of the alarm.

A few Marines clamber over mounts 32 and 33, removing the

canvas weather covers. Sailors on 35 already have their helmets and life-jackets on, and Chief Gunner's Mate Sidney L. Smith grabs a last minute smoke with some of his boys behind Turret One.

In forward gun control a lithographer from the print shop adjusts his sound-powered phones inside the oversized talker helmet. A ladder rattles as LCDR William D. Neeper, USN, *Macon's* gunnery officer, climbs up from the signal bridge. Adjusting

his helmet denoting the fact that he is the "Gun Boss," he scans the forward mounts. Others arrive, and forward gun control is fully manned before GQ sounds.

The alarms indicate the beginning of the morning-long drill. On the main deck, men move on the double and climb to their emergency posts in the superstructure. Collar buttons are fastened, dungaree pants are tucked into socks and butch haircuts are covered by steel helmets as hatches and doors clang shut. Condition X-ray is set.

LCDR Neeper nods with satisfaction as he notes turret 1 beginning to swing to starboard, its three barrels moving slowly up and down as controls are checked. Inside the turret and in the ammo handling rooms below, 50 to 60 men are at controls or standing by.

Calvin Porter, GM2, a 5-inch mount captain grins down at a hot-

case man as the twin barrel mount swings out to track an imaginary target. Turret 3 assumes new life as the turret captain, Forrest C. Roberson, GM1, listens intently to his phones, watches the signals in front of him, and snaps out commands that bring the turret to starboard.

THESE are a few of the men that make up the Gunnery Department of *Macon*. Their guns are, they like to claim, the main reason for *Macon's* life. Every department on the ship functions to take these weapons within striking distance of the enemy—hence, this morning's shoot.

As phone circuits are manned and mounts declare their readiness, LCDR Neeper runs through a brief explanation of the morning's exercises to his gun control staff. He points out that the 5-inch guns will fire first to starboard at a towed target, range 9000 yards. Next will come the 8-inchers at a range of 17,000 yards.

The distant tug and its target tow move into position, but an oiler and a DD steam serenely along just beyond the target and in direct line with the trained-out guns. Up in a Mark 37 director the control officer heatedly proposes that a shot be fired across the tanker's bow and it be told to heave to.

This suggestion is modified on the

ALL HANDS

GUN BOSS—LCDR W. D. Neeper notes ranges and bearings during firing.



bridge via radio by Captain Harry Hull, USN, known affectionately to the crew as "Hurry up Harry" because of his desire to get to sea, get the job done, and get back. The captain's "suggestion" that the oiler get out of the way has the desired effect and soon the AO and its trailing destroyer turn tail and head for safer areas.

With the target clear, ranges and bearings filter down through the fire control system. Guns are trained, ammunition is sent up through the hoists as the command: "Prepare for surface action, starboard," is passed. "Standby" is the next command and then "Commence firing." Down in surface plot, the fire control officer watches instruments as the starboard 5-inch battery comes to bear and voices a sharp "shoot." Triggers are keyed and 5-inch barrels leap.

Even though the commands were heard, gun control personnel jump as

ACTION'

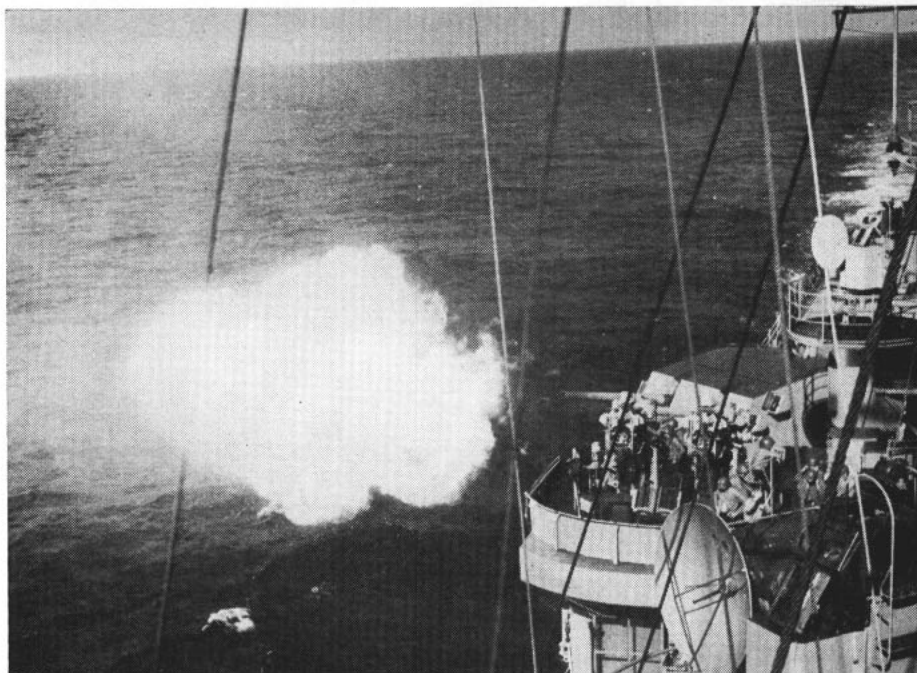
the first salvos go out and then they settle down to watch for splashes. Before the first round hits the water, crews are loading the second into the still hot barrels. Continuing corrections are made by the fire control systems, the second and third rounds boom out, and are on their way to the target five miles away.

INSIDE THE MOUNTS it is strictly business as the guns are loaded, fired and reloaded. A misfire occurs, but a Mount Captain promptly switches the fire to the mount's other barrel. Only 66 seconds are allowed for each gun to get 12 rounds off at the series-40 surface target sled which carries two radar reflectors.

Watching the splashes through binoculars, LCDR Nepper explains that only one mount forward and one aft is firing, each using only one barrel. This is sufficient since all of the guns are directed by either the forward or after mark 37 fire control systems. "Pretty good shooting," the Gun Boss comments as splashes bracket the target, "considering that we just left the Navy Yard."

"Cease fire" orders are given to the Air Defense officer who grants permission for a mount to unload its misfire through the muzzle at the target and asks for a report on the malfunction.

He is assisted in administering



this surface shoot by his main battery officer, Air Defense officer, sectors 1 and 2 officers and a battery of talkers. After gun control is occupied by the sector 3 and 4 officers and more talkers.

Down in Mount 53 (the number denotes that this particular mount is the third 5-inch installation counting back from the bow, odd figures to starboard, even to port) GM2 Porter and his crew are busy securing from the surface fire and preparing for a series of tracking exercises. From his perch Porter calls down instructions to his 11-man crew.

Each weapon has a projectileman

who removes the shells from the hoist and a powderman who pulls the cases of powder up through a scuttle in the deck of the mount. A hot-case man throws the used brass out of the mount when it is elevated to an angle where the hot case chute will not function. The gun captain controls the spade which rams the projectile and powder case into the chamber. In the front of Porter's mount, sitting between the guns, is the sight setter. The trainer sits in the righthand corner and the pointer in the left.

Below the mount in the upper handling room are six more men.

TRAYMAN signals rammerman to load projectile, gun captain inserts primer.





ON THE DOUBLE—Sounding of general quarters sends USS Macon's crew running to their battle stations. This was the start of the day's gun practice.

Two powdermen keep Porter's guns supplied with powder and two projectile men keep the hoists loaded with shells. The fifth and sixth men operate the scuttles through which ammunition is passed from the magazines.

The purpose of Macon's visit to Guantanamo Bay is, of course, to provide the best training available in all phases of operations. It's hard work. This morning's shoot is only one of such exercises and training is an all-hands operation, from the captain on down to the seaman apprentice who has had a few day's more experience than his shipmate.

CHECK OUT—Chief Gunner's Mate S. L. Smith supervises the checking of firelocks inside one of ship's turrets.



The heart of the training program for the entire Navy lies primarily in the capabilities and initiative of the senior petty officers—men such as Porter. They, and their division officers, are those who either formally or informally and, by example or by a casual word here and there, pass on the accumulated knowledge of the Navy. During drills such as this they pass on the practical as well as theoretical knowledge needed to operate the Navy. Throughout the ship, on this and every other occasion, division officers and petty officers are passing the word in similar fashion. Porter, for example, continues to teach his gun crew, even during the stress of this morning's exercise.

AS MACON turns to port to extend the range for the 8-inch shoot, Porter mentions that the 5-inch guns are the most typical of our present-day weapons. (More than half of the Navy's catalog of gun mounts and turrets is devoted to 5-inch weapons of various types and calibers.)

"Jake," says Porter, "How many 5-inch guns on board a heavy cruiser like Macon?"

"Six 5-inch 38 caliber enclosed twin mounts," replies Jake promptly.

"But tell me, Porter, what does that 38 caliber mean? I never did get that straight."

"Andy, tell the man what it means."

"The caliber of a gun is the diameter of the bore. In the Navy designation 5-inch 38 caliber, we give

the bore size as five inches and indicate the barrel length by saying it is 38 calibers long. Let's see, it would be 38 times five inches 190 inches long."

"That's a good explanation. Now take a look at these two guns," Porter ordered. "It is like looking at one gun and seeing its reflection in a mirror. The rammer is on the right side of the right gun and on the left side of the left gun. They also have right and left housings, slides and gas ejectors.

"Like all of the ship's 5-inch mounts, this one can be aimed automatically with the orders coming in the form of electronic impulses from the fire control system; through the use of local power; or by old fashioned muscle turning the cranks that rotate the mount and elevate the barrels.

"We can fire 12-rounds a minute through each barrel if you are all on the ball and can drop the shells on a target more than 18,000 yards away or cause air bursts around an enemy plane more than 30,000 feet overhead."

This gunner's mate who has been on mount 53 for two-and-a-half years and in Macon for eight years, asked his sight setter: "What type of primers do we use?"

"Percussion and electrical," is the snappy answer.

"OK. What type of ammunition do we use," is the question put to a trainer by Porter.

"This mount uses semi-fixed type ammunition," the trainer answers and expanding on his answer he continues, "the projectile and the powder case are separate units. We can fire VT proximity fragmentation shells against aircraft or the common AA shells that explode on contact."

"That's right," Porter says stopping the sailor, "and we can also fire smokeshells, armor-piercing and other Navy projectiles."

PORTER HAS EVERY right to instruct his men with authority. He has spent 14 years in the Navy and nearly all of his gunnery experience has been on 5- and 3-inch mounts; but some of his running mates claim he is strictly a right-handed gunner. During his eight years in Macon he has always been assigned to a mount on the starboard side.

"This starboard mount, which is no different from those on the port side," he commented, "is mounted above an upper handling room where

the ready service ammunition is stored. The ammo is passed up through two projectile hoists, and two powder case hoists to the gun mount. The upper handling room is supplied by two hoists bringing shells and powder up from the lower handling room, which is several decks below.

"Send up a dummy round," Porter orders and with a loud buzz the projectile arrives at the top of the hoist resting nose down in a projectile flight that might be likened to an old oaken bucket.

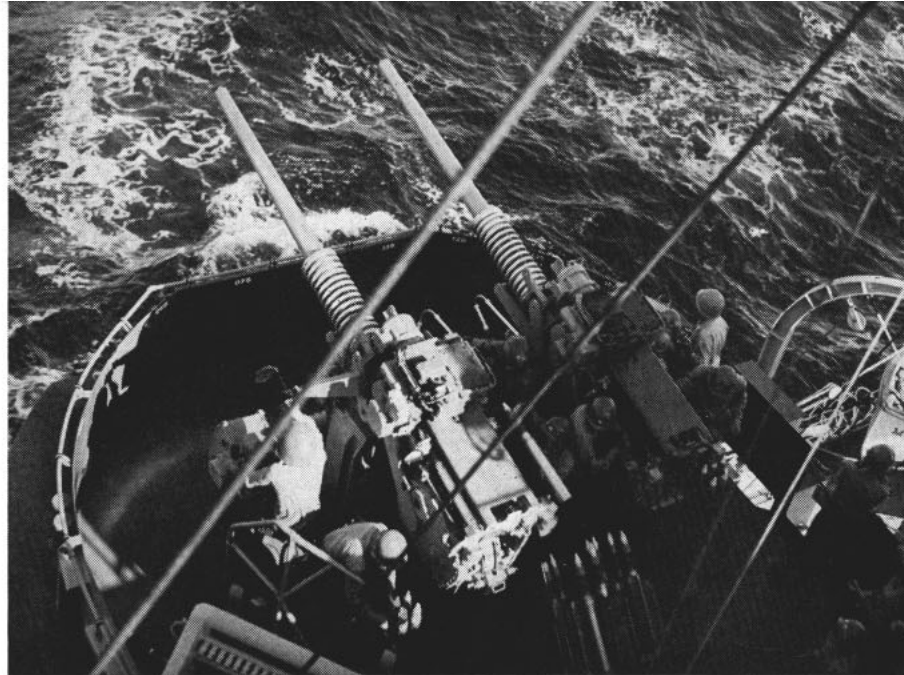
"See these pawls inside the projectile flight? During the trip up from the handling room, they engage these lugs on the timing ring of the fuze and turn it the proper amount so that the shell will explode so many seconds after firing. We can regulate this fuze-setting device here in the mount or it can be set through the fire control system.

"Now take a look at the projectile hoist. Inside are two of these projectile flights, both attached to a continuous link chain which is propelled by sprockets. The two flights are mounted 180 degrees apart on the chain. When one flight is at the top of the hoist the other flight is down. Both of the projectile platforms move in their own channel. When the flight reaches the top the chain direction is reversed and it returns to the bottom for another shell. At the same time the other flight containing a shell is raised to the top."

With the passing of the order: "Standby, surface action, starboard," Porter sends his crew back to their posts. The range between *Macon* and the target streaming 1500 yards behind the tug, has widened to 17,000 yards. LCDR Neeper, making a last-minute check with his main battery officer, is informed that each of the three 8-inch turrets are ready to fire seven rounds in two minutes, 20 seconds, through a single barrel at the target.

Spot 1 and 2, the two Mark 34 fire control system directors, are already locked on target and tracking. Standby is passed over the phone circuits followed a few minutes later by "Commence firing." The long barrels leap into the proper angle of elevation selected by the fire control systems and the first salvo is on the way.

With the round off, the ready switch inside the turret gun compartment is thrown to safe by the gun captain, and the barrel auto-



FIRE AWAY—Gun crew of 3-inch 50 caliber anti-aircraft mount gets a bang out of firing at the tow target during gun exercises at sea off Gitmo Bay.

matically drops back to the load position, nine degrees' elevation.

"Bore clear," calls out the gun captain after he has opened the breech, turned off the gas ejector and looked up the barrel. The trayman extends the rammer tray and the rammerman moves the lever that in 1.5 seconds pushes the 260-pound projectile into the gun and firmly seats it as the gun captain inserts a primer cartridge into the firing lock. As the rammer is withdrawn, the gun captain and trayman become powdermen, each lifting a 105-pound silk bag of powder from the hoist in the deck, placing it in the ramming tray, and ramming it by hand.

The rammer cradle is retracted, the gun captain steps on the foot pedal to close the breech by power, and then moves the ready switch to close the firing circuit. The barrel leaps to gun-order elevation and "Ready" is signaled to turret captain Roberson, GM1.

WITH THE ORDER of "Cease fire" after Turret 3 got off its seventh round, Roberson pointed to the right gun. "The entire loading operation in there is accomplished by gun captain W. H. Rose, GM3, in 8.5 seconds. He is one of the best 8-inch gun captains in the ship," Roberson explained to a junior officer who recently reported aboard *Macon*.

"Why is this turret divided into compartments while the 5-inch mounts are not?" the officer asked.

"The 5-inch mount uses a metal powder case while we work with

gunpowder in fragile silk bags. There is always the chance of a fire which could be disastrous," Roberson answered. "In order to localize this danger into several small areas rather than one big area, three flame-tight bulkheads have been installed in the turret dividing it into four compartments."

"I see what you mean, Roberson. If a fire does occur in this gun compartment you could keep on firing the other two guns if necessary."

"That's right sir. See how these two bulkheads run from the front of the turret to a point about three-fourths of the way to the rear? They divide the forward portion of the

SCOPE OF FIRING—Turret officer L. A. Lentz looks through periscope to check target's location and guns.



turret into three spaces. The third bulkhead runs across the turret providing a booth for the turret officer.

"I'm stationed in here with the turret officer during GQ. We have the rangefinder, the computer and other fire control instruments used when the turret is in local control; and the turret officer's transfer switchboard where he controls firing and various types of local and remote circuits.

"The other three flame-tight compartments each contain the breech end of one of the guns, and ammunition hoist equipment. In addition to the gun captain, rammerman and trayman, each gun compartment holds a local control pointer, while the left gun compartment has a trainer who maneuvers the entire turret while on local control, and a sight setter. These crew members enter the gun compartments through individual doors in the rear bulkhead."

"All right, you have the turret protected, but what about below decks?"

"This flame-tight compartmentation continues all the way down through the turret which extends below the first platform deck. Down there is the powder room where bags

of powder are passed from the magazine through scuttles that automatically close on the magazine side when opened in the powder handling room. A two-stage hoist is used to carry the bags to the three gun compartments, another design feature which insures flame-tight integrity.

"The lower hoist consists of three car-type units that carry the silk bags of powder to the upper handling room. Each of these hoist units services a pair of hoists that carry the bags to the gun captain on the left side of the gun, and to the trayman on the right. Each hoist is fitted with flame-tight upper and lower doors so that there can never be a clear path for flames to follow to the lower levels of the turret.

"The heavy projectiles come up through three hoists, one to each gun, from the platform just below the upper handling room. You can see how the shell is resting in the end of the ramming tray when it arrives in the gun compartment, ready to be swung into a horizontal position for ramming.

"We are designed for surface action or shore bombardment at ranges up to 31,000 yards," Roberson commented, "so we will not be

taking part in the AA shoot this morning."

ALREADY A PLANE is flying low overhead, its bright red target sleeve easy to see as it streams out behind the plane. LTJG George H. Overstreet, USN, Macon's AA control officer, between giving commands and receiving orders, lets his staff know that the first firing runs would be bearing rate maneuvers. In other words, the ship's ability to strike a target at a nearly constant range (5000 yards), but rapidly changing bearing, would be tested by the plane flying back and forth parallel to the ship's course. Both the open 3-inch 50 caliber mounts and the 5-inch battery would be firing under control of their respective fire control systems.

Many think that the sharp cracking sound of the 3-inch mount, firing 50 times a minute through each barrel, is enough to wake the dead, but in times of combat it can mean certain death to approaching planes. The 3-inch rapid-fire mounts use only the VT or proximity fuze. In contrast with the large black 5-inch explosions, the 3-inch bursts are more numerous, smaller and white in color.

Taking advantage of a lull in the firing, LTJG Overstreet told a striker from X Division, "The fixed ammunition for those 3-inch mounts is kept in ready service lockers near the twin barrel mounts. Shell passers load the 24-pound rounds on revolving magazines at the rear of the mount as the left and right shellmen on each gun withdraw shells to feed the automatic loaders."

"Those mounts don't have hoists like the big guns, do they?"

"That's right, this system of ammunition handling eliminates the need for elaborate projectile hoists."

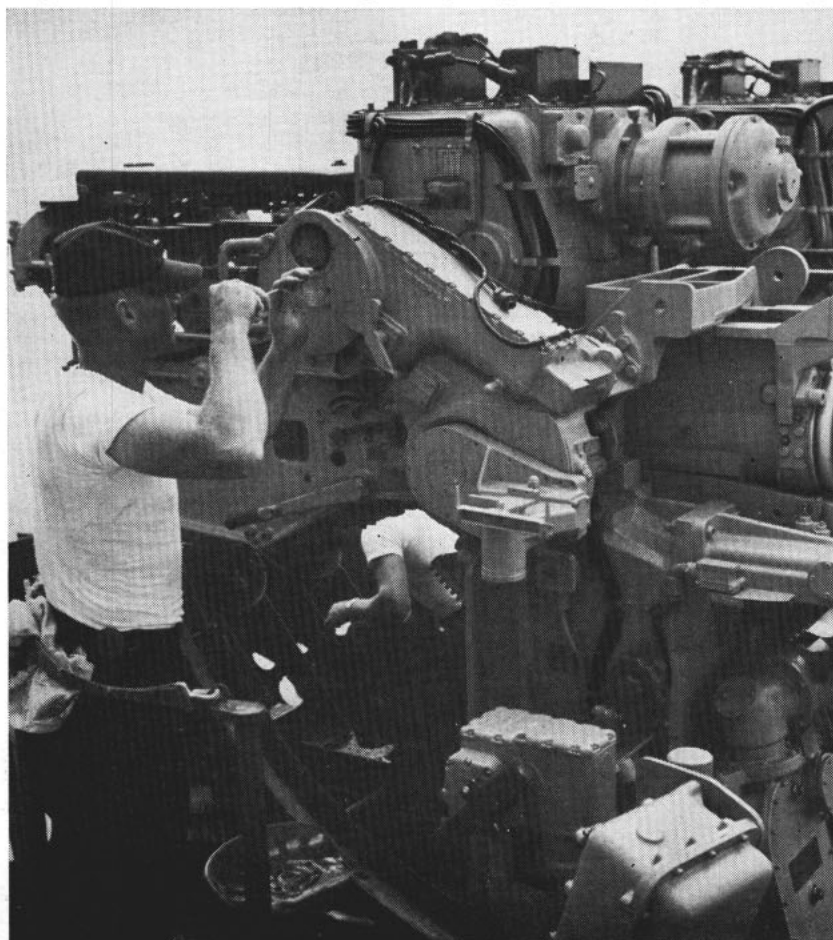
"Air action, starboard! Standby! Commence firing!"

When the thunder of the gun subsided and cease fire was ordered Mr. Overstreet said, "The 3-inch mounts can train through nearly 720 degrees (two complete turns) before hitting the stops and having to unwind. They are manned by seven men including four loaders, two gun layers, and a gun captain. They also have several ammunition passers."

Looking down on one of the mounts the striker asked, "Who is the guy that sits between the barrels, sir?"

"That's the gun captain who con-

PRELUDE TO PRACTICE—Gunner's Mate First Class John George checks over his gun while others of his crew get things shipshape for the day's shooting.



ALL HANDS

trols the operation of the mount. Over on the left side of the mount is the left gun layer who controls the aiming of the gun when it is on anti-aircraft local control. The right gun layer performs a similar function when the mount is on surface local control, but he uses an optical sight rather than the open peep and ring unit used by the left layer.

"However, the seven rapid-fire 3-inch mounts on *Macon*, which have a maximum range of slightly over 13,000 yards, are normally fired on automatic through the Mark 56 control system."

AS THE TOW PLANE began the first of the range rate firing runs, LTJG Overstreet pointed out the plane. "See how it is coming directly toward the ship's beam? The bearing remains nearly constant, but the range is diminishing rapidly."

"It looks like he is going to dive bomb us, doesn't it, sir?"

"That's right, and this is the situation you would usually be up against when put under attack by enemy planes."

The effectiveness of the guns, fire control systems and the crews soon became apparent as three sleeves went fluttering into the water, ending the firing runs for the day.

During the remainder of General Quarters, LTJG Overstreet, Chief Gunner Paul A. Kube, and Chief Gunner's Mate Joe W. Scarborough, USN, were down among the gun mounts, conducting on-station instruction periods. Going from mount to mount, they questioned men on gunnery procedures and gave advice. LTJG Overstreet and Chief Scarborough worked with loaders, projectilemen, trainers and pointers, finding out if they knew what to do in the event of misfires, hangfires and equipment casualties. Weak points in the training program discovered in this fashion were pointed out to the mount captains and solutions planned.

Chief Gunner Kube was spending most of his time with the mount captains questioning them on fire control techniques.

"Your mount is on local control," he explains to a mount captain, "and you observe your salvo hitting an estimated 500 yards beyond the target. How do you adjust your fire to bracket the target?"

"You halve the distance you estimate you are overshooting and by the third round you should be on



GUN MAN—Calvin Porter, GM2, one of *Macon's* 5-inch mount captains, gives orders to his 11-man crew from perch high at the back of the gun mount.

target," the mount captain answers.

Turning to another 5-inch captain he asks the same question only this time the shells are falling short.

"I would order an increase that I know would put my fire over the target. After observing the splashes I would halve the distance until I bracket the target."

"EXCUSE ME, SIR," a gunner's mate striker interrupts. "I just came aboard from a DD and still don't know too much about the fire control systems on here. How about a rundown."

"All right, let's start with the 8-inch main battery. It is controlled by two Mark 34 systems which can track two, maybe three targets at one time. The directors for the two systems—there's one above forward gun control and the other high in the superstructure aft—are called Spot 1 and Spot 2. Spot 1 controls the forward two turrets while Spot 2 seeks targets for Turret 3. Their radar findings concerning range and bearing of a target are fed to surface plot on the fifth deck where the primary computers and other electronic gear is located.

"The two main battery systems can also be used to control the 5- and 3-inch guns, but normally the secondary batteries rely on their own fire control devices, Mark 37 for 5-

inch guns, and Mark 56 for the rapid-fire threes."

"I know about those. We had them on the cans out in the Pacific."

"That's right, they do carry these two systems. But we have two Mark 37 systems used to control our 5-inch battery, a DD only has one. We can also use this system to control the 3- and 8-inch batteries. Look up there. See those units that look like 5-inch mounts without guns? Those are Mark 37 directors.

"Like the Mark 34, this director contains a trainer's sight, a pointer's sight—which are both telescopic—a rangefinder and a radar unit. The information collected by the Mark 37 directors is usually fed into sky plot deep inside the ship.

"Internally the Marks 34 and 37 systems are similar. Both have directors which feed range and bearing information, and in the case of the 37 system, elevation data to the range keeper unit. This information is coupled with the ship's heading supplied by gyrocompass, its speed as furnished by the pitometer log, the wind direction and velocity, and other data.

"Within seconds the fire control problem is solved by the fire control computer system and the unit transmits the gun orders (sight settings, fuze settings, etc.) to the mount con-

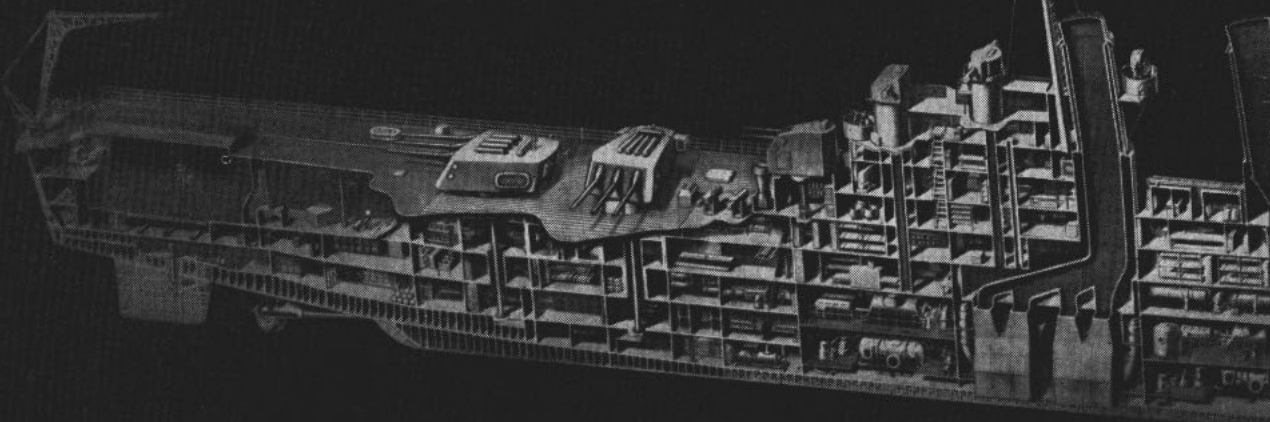
(Continued on page 34)



CA—Heavy Cruiser



CAG—Guided Missile Heavy Cruiser



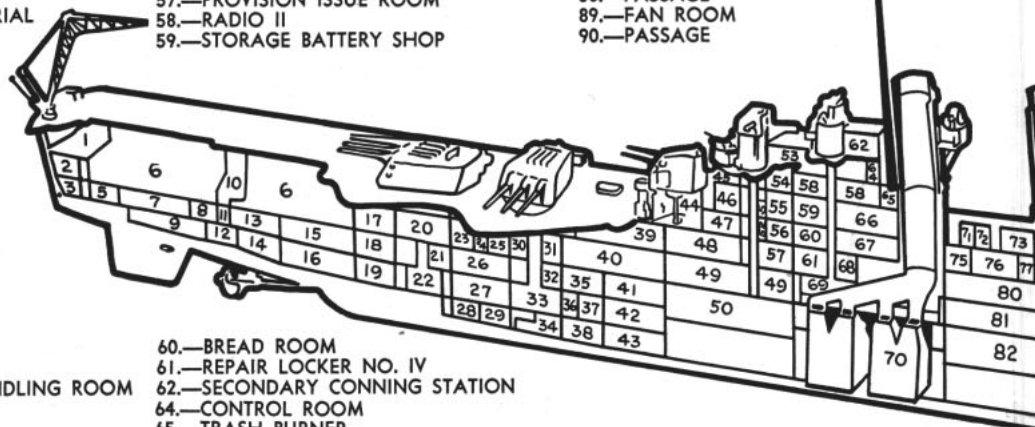
TYPICAL CRUISER

- 1.—ELEVATOR MACHINERY FLAT
- 2.—AIRPLANE CRANE HOIST MACHINERY
- 3.—WASTE AND RAGS
- 4.—GASOLINE TRUNK
- 5.—PROVISIONS
- 6.—HANGAR SPACE
- 7.—ELEVATOR PIT
- 8.—PROVISIONS
- 9.—STEERING GEAR
- 10.—ESCAPE TRUNK
- 11.—W. T. TRUNK
- 12.—AIR CONDITIONING UNIT
- 13.—SHIP'S STORE STOREROOM
- 14.—SUPPLY DEPARTMENT STORES
- 15.—PROVISION STOREROOM
- 16.—CHEMICAL DEFENSE MATERIAL
- 17.—AVIATION ARMORY
- 18.—MAIN ISSUE ROOM
- 19.—STOREROOM
- 20.—BARBETTE NO. IV
- 21.—PASSAGE
- 22.—6-INCH AMMUNITION HANDLING ROOM
- 23.—MEATS
- 24.—PASSAGE
- 25.—THAW ROOM
- 26.—CREW'S BERTHING
- 27.—STOREROOM
- 28.—VOID
- 29.—VOID
- 30.—ORDNANCE STORES
- 31.—REPAIR STATION VI-A
- 32.—ORDNANCE STOREROOM
- 33.—6-INCH AMMUNITION HANDLING ROOM
- 34.—STOREROOM
- 35.—CREW'S BERTHING
- 36.—STOREROOM
- 37.—STOREROOM
- 38.—ORDNANCE STORES
- 39.—CREW'S BERTHING
- 40.—CREW'S MESSING
- 41.—AFTER GYROCOMPASS ROOM
- 42.—PROJECTILE STOWAGE
- 43.—DIESEL GENERATOR

- 44.—STOREROOM
- 45.—OPTICAL SHOP
- 46.—FAN ROOM
- 47.—CREW'S GALLEY
- 48.—CREW'S BERTHING
- 49.—SCULLERY
- 50.—AFTER ENGINE ROOM
- 51.—STOREROOM
- 52.—STOREROOM
- 53.—AFT MAIN BATTERY FIRE CONTROL STATION
- 54.—PASSAGE
- 55.—PASSAGE
- 56.—PASSAGE
- 57.—PROVISION ISSUE ROOM
- 58.—RADIO II
- 59.—STORAGE BATTERY SHOP

- 74.—UPTAKE SPACE
- 75.—POST OFFICE
- 76.—BOAT ENGINE SHOP
- 77.—DIVING GEAR LOCKER
- 78.—PASSAGE
- 79.—BLOWER SPACE
- 80.—CREW'S BERTHING
- 81.—EVAPORATOR ROOM
- 82.—FORWARD ENGINE ROOM
- 83.—CONTROL ROOM
- 84.—PYROTECHNIC LOCKER
- 85.—UPTAKE SPACE
- 86.—PASSAGE
- 87.—PASSAGE
- 88.—PASSAGE
- 89.—FAN ROOM
- 90.—PASSAGE

- 100.—FORWARD
- 101.—MAIN BATTERY
- 102.—CHART ROOM
- 103.—CONTROL ROOM
- 104.—CAPTAIN'S QUARTERS
- 105.—W. R. O.
- 106.—UPTAKE SPACE
- 107.—PASSAGE
- 108.—PILOT HOUSE
- 109.—PASSAGE
- 110.—FLAG PLANT



- 60.—BREAD ROOM
- 61.—REPAIR LOCKER NO. IV
- 62.—SECONDARY CONNING STATION
- 64.—CONTROL ROOM
- 65.—TRASH BURNER
- 66.—METAL-WORKING SHOP
- 67.—BAKERY
- 68.—FAN ROOM
- 69.—UPTAKE SPACE
- 70.—AFTER FIREROOM
- 71.—STOREROOM
- 72.—CONTROL ROOM
- 73.—POTATO STOWAGE

- 92.—EQUIPMENT ROOM
- 93.—PLOTING ROOM
- 94.—SHOWER
- 95.—WARDROOM-STATEROOM
- 96.—RADIO CENTRAL
- 97.—CAPTAIN AND GUEST LINEN LOCKER
- 98.—GUEST PANTRY
- 99.—FAN ROOM



CB—Large Cruiser



CL—Light Cruiser



CLC—Tactical Command Ship



CLAA—Antiaircraft Light Cruiser



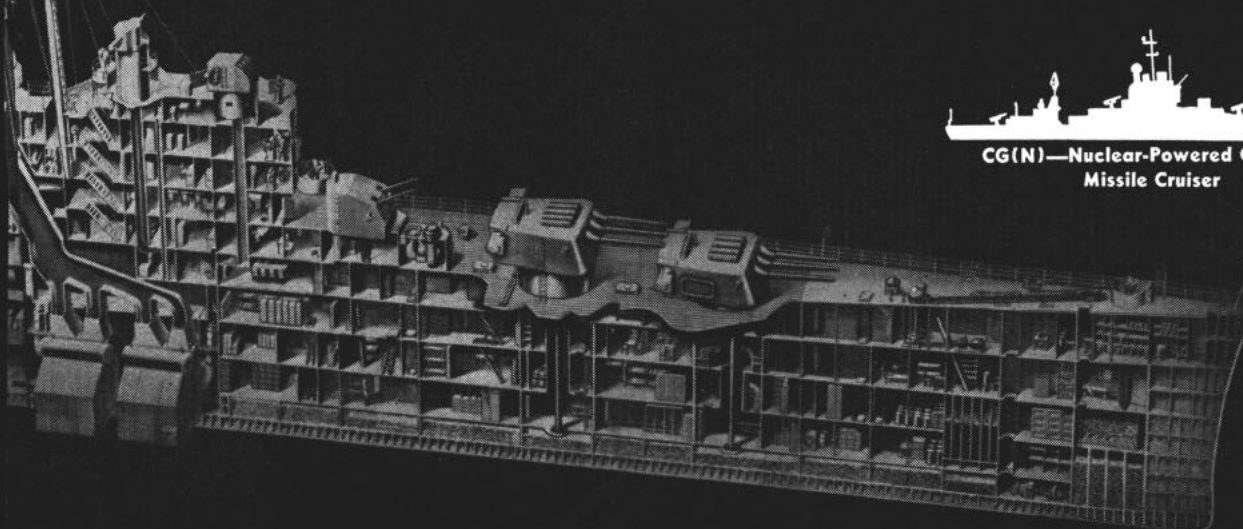
CG—Guided Missile Cruiser



CLG—Guided Missile Light Cruiser



CG(N)—Nuclear-Powered Guided Missile Cruiser



0 FIREROOM
ATTERY FIRE CONTROL STATION
OUSE
ROOM
AND GUEST PANTRY
FICERS' W. C. AND SHOWERS
PACE

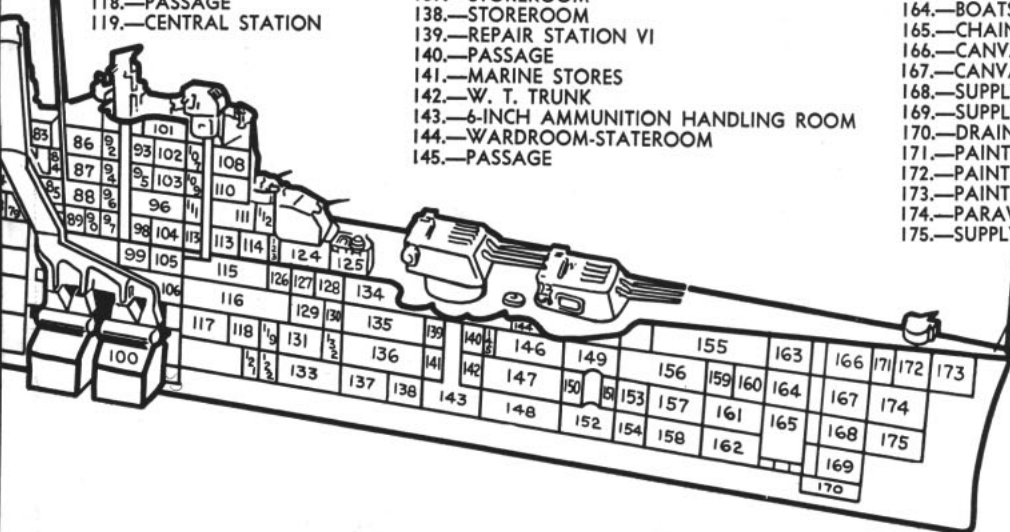
USE

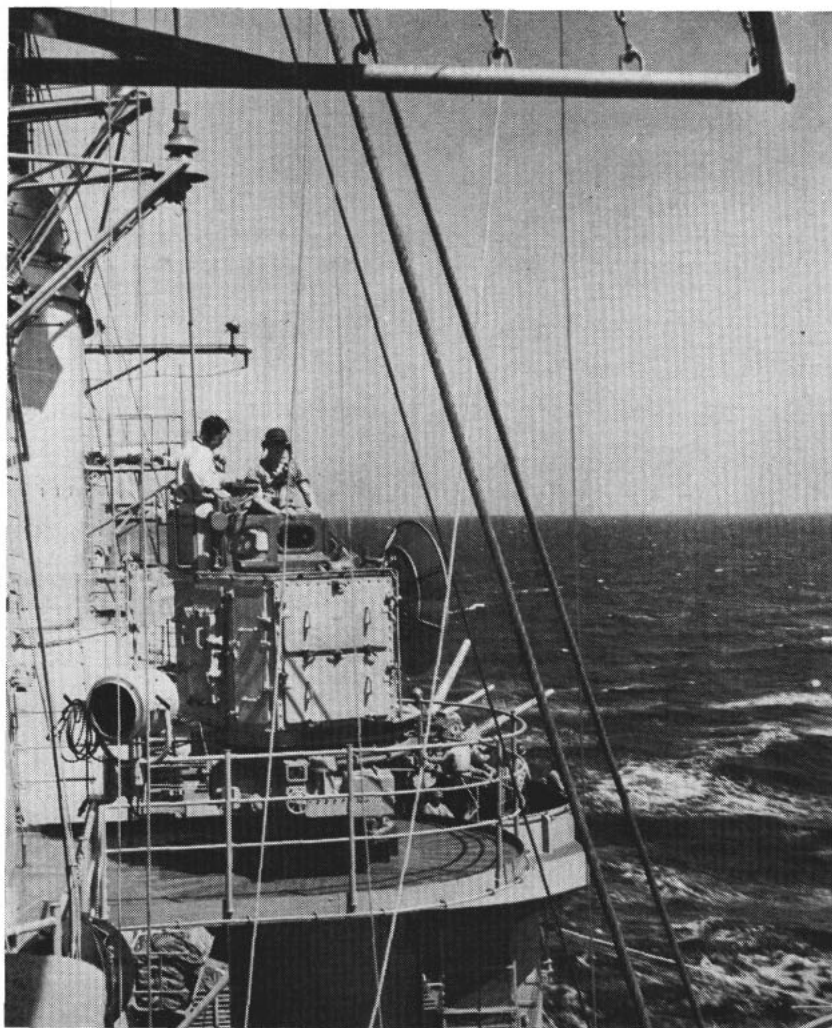
OT

111.—CODING ROOM
112.—STOREROOM
113.—GUEST CABIN
114.—GUEST BATH
115.—WARDROOM-MESSROOM
116.—CREW'S BERTHING
117.—STOREROOM
118.—PASSAGE
119.—CENTRAL STATION

121.—W. T. TRUNK
122.—INTERIOR COMMUNICATION ROOM
123.—PASSAGE
124.—5-INCH HANDLING ROOM NO. I AND
R. S. AMMUNITION
125.—FAN ROOM
126.—PASSAGE
127.—REPAIR LOCKER NO. II
128.—PASSAGE
129.—PASSAGE
130.—W. T. TRUNK
131.—CREW'S BERTHING
132.—W. T. TRUNK
133.—5-INCH AMMUNITION HANDLING ROOM
134.—PASSAGE
135.—PASSAGE
136.—CREW'S BERTHING
137.—STOREROOM
138.—STOREROOM
139.—REPAIR STATION VI
140.—PASSAGE
141.—MARINE STORES
142.—W. T. TRUNK
143.—6-INCH AMMUNITION HANDLING ROOM
144.—WARDROOM-STATEROOM
145.—PASSAGE

146.—WARRANT OFFICERS' MESS ROOM
147.—CREW'S BERTHING
148.—STOREROOM
149.—BARBETTE NO. I
150.—6-INCH DRILL AMMUNITION STOWAGE
151.—C & SS STOREROOM
152.—6-INCH AMMUNITION HANDLING ROOM
153.—C & SS STOREROOM
154.—STOREROOM
155.—PASSAGE
156.—PASSAGE
157.—SUPPLY DEPARTMENT STORES
158.—SUPPLY DEPARTMENT STORES
159.—WARRANT OFFICERS' STATEROOM
160.—WARRANT OFFICERS' STATEROOM
161.—SUPPLY DEPARTMENT STORES
162.—SUPPLY DEPARTMENT STORES
163.—WINDLASS ROOM
164.—BOATSWAIN STORES
165.—CHAIN LOCKER
166.—CANVAS AND AWNING STOWAGE
167.—CANVAS AND AWNING STORES
168.—SUPPLY DEPARTMENT STORES
169.—SUPPLY DEPARTMENT STORES
170.—DRAINAGE PUMP ROOM
171.—PAINT-MIXING ROOM
172.—PAINT STOWAGE
173.—PAINT STOWAGE
174.—PARAVANE AND SPARE PARTS
175.—SUPPLY DEPARTMENT STORES





SEEING EYE—Macon men stand by one of the heavy cruiser's gun directors ready to track target for range and bearing information when practice starts.

(Continued from page 31)

cerned and then automatically tells the director control unit how to keep tracking the target so that continuous information will be available."

"How about the 3-inch 50s? What controls them?" the former destroyer-man asks.

"Mark 56, sailor, is one of the most advanced fire control systems in the business and one of the most complicated. We have six of these units which can track a 650-knot target at ranges up to 12,000 yards and solve the fire control problem after tracking for as briefly as two seconds. Another unique thing about that director, which can also be used on surface targets, is that it can control two different sized batteries firing at the same target simultaneously, furnishing different gun orders for each battery. To do this they have an elaborate network of computers, including a ballistic unit and a con-

verter, that takes the original findings of the system and converts them for the ballistics of the second battery."

"Secure from General Quarters. Set the normal steaming watch."

"All right you men," the gunner said, "You heard the word. Secure."

AT THAT MOMENT nearly all of Macon's crew were leaving quarters that were connected directly or indirectly with the firing of the guns. Sailors from outside the Gunnery Department man phone circuits, pass ammunition or perform other valuable services. These jobs are held down by yeomen, personnel men, mess cooks, printers and others.

However, nearly half of Macon's crew and one-third of the ship's officers are assigned to one of Gunnery's nine divisions. This large amount is attributed to the fact that the entire deck group and the Marine Detachment are included among the gun-

ner's mates and that the First Lieutenant and the Ship's Boatswain are on the staff of gun boss, LCDR Neeper.

Also in the gunnery group are the missilemen and the missile and special weapons officers who arm, fire, and control the ship-to-surface *Regulus*.

The 1st, 2nd, and 3rd Divisions provide the crews for the three turrets and the 4th and 5th Divisions fire the 5-inch battery. All but two of the 3-inch mounts are handled by men from the 6th and 7th Divisions. Mounts 32 and 33 are manned by the Marine Detachment. F Division personnel occupy billets in the fire control system and the G Division men work in the guided missile area at the stern of the ship.

As Gunnery Officer, LCDR Neeper has three cardinal responsibilities: (1) to open fire with a minimum of delay; (2) to fire accurately; and (3) to deliver sufficient fire to destroy the enemy.

This morning's shoot proved that Macon can do all three. A Mark 56 director failure was reported when the batteries were being manned, but the fire control people stepped in, pulled out a tube, replaced it, and got the director back right on the line.

Another incident that proved Macon's ability to live up to the three cardinal responsibilities occurred in an 8-inch turret. A set screw broke and a pin dropped out of a ramming tray, putting the gun out of action. The turret captain quickly switched his fire to the left gun which experienced a misfire and it was necessary for the turret boss to switch his fire again; this time to the right gun. Repairmen had entered the center gun compartment and repaired the tray, and a new firing lock was being installed on the left gun, before the right gun was ready to fire.

The Gunnery Officer asked for written reports on the failures from all persons concerned so that the material weaknesses could be eliminated. Personnel weaknesses detected during the morning-long drill will be eliminated by training, and training is a continuing thing in Macon's high-gearred Gunnery Department.

All hands in the heavy cruiser realize that those guns and the big blue *Regulus* war birds are Macon's big stick.

—William Prosser, JOC, USN.

P & A in a Cruiser

IN ANY MAN O' WAR, the skipper's right-hand man is the "exec"—the captain's chief assistant and the man who would take over if the captain were disabled. In *USS Macon* the man in that many-sided billet is CDR W. J. Hughes, Jr., USN.

Detailed as *Macon's* executive officer by the Secretary of the Navy, CDR Hughes ranks next to the captain in the ship's chain of command. He is the direct representative of the CO in maintaining the military and general efficiency of *Macon*. The XO has no authority independent of the skipper, and the details of his duties are regarded as execution of the captain's orders. However, in all matters pertaining to the operation and maintenance of the ship and to the preservation of order and discipline on board, all heads of departments and other officers and enlisted men are under his orders.

The responsibilities of the exec are many. They include: The coordination and supervision of all departments; morale, welfare and discipline; the assignment and records of personnel; religious matters; the preparation and maintenance of bills and orders; supervision and coordination of work, exercises and training; supervision of loading and berthing plans; supervision of ship's correspondence; the training and education of the ship's company; and even legal matters.

When *Macon* is cleared for action—whether it's for real or only a drill—the executive officer is the man who makes sure the ship and its departments are ready for battle and informs the skipper of that fact. Because he is considered the relief captain, the exec's battle station is in a spot where he could survive a hit which might disable the CO, and where he would be in a position to assume command promptly and effectively if the need arose. From that spot he must keep in close touch with the primary ship control station while the fighting is in progress. Afterward, he reports to the captain all details of the action observed and makes a statement telling how various individuals conducted themselves during the engagement.

TO SHOULDER this load of responsibility the exec has help from the officers and enlisted men of the Executive Staff and, of course, from the

heads of departments in the ship.

The officers on the staff include a LTJG who doubles as Personnel officer and X Division officer, the assistant personnel officer (an ensign), the W-1 who is ship's secretary and CO's writer, the LTJG who serves as education and training offi-

Personnel & Administration

By the Executive Staff

Make for a Well Run Ship

cer, the lieutenant who is *Macon's* chaplain and the legal officer (a LTJG). In addition, officers from other departments of the ship may serve as special staff assistants; and the chief master at arms acts as an assistant to the exec in matters involving the enforcement of regulations, the maintenance of good order and discipline and the welfare of brig prisoners (if there are any).

Basically, the personnel officer, assistant personnel officer and the men who work in the personnel office, are responsible for assigning enlisted men to the proper divisions and for the administration and custody of enlisted personnel records.

This is the office that keeps service records up to date; takes care of the paperwork that goes along with transfers, advancements, reenlistments and the like; compiles

estimates of future personnel requirements; issues those all-important leave papers and liberty cards; establishes division quotas for the assignment of messmen; prepares the daily absentee report; processes the orders of men arriving on or being transferred from *Macon*; and handles the many other tasks involved in personnel administration for more than a thousand men.

Besides directing these activities the personnel officer also supervises such matters as the administration and operation of the exec's office, and the preparation and review of the Plan of the Day before the exec signs it. While "wearing his other hat" as division officer of X Division the personnel officer performs most of the usual duties of a division officer.

THE SHIP'S SECRETARY is the man who handles and accounts for *Macon's* correspondence, takes care of officer personnel records, acts as the CO's secretary and supervises the preparation of correspondence originated by the captain.

In carrying out those functions he supervises the men who work in the Captain's Office and the administration and operation of that office; reviews all correspondence prepared for the signature of the skipper, exec or other officers authorized to sign by direction; processes all incoming and outgoing correspondence except Top Secret; maintains the central correspondence and directives files of the ship; supervises the compilation and forwarding of required reports; keeps reports and correspondence moving; advises the heads of departments and clerical personnel on problems involving the Navy correspondence system; supervises the distribution, handling and forwarding of officers' fitness reports; keeps officer records up to date; directs the operation of the print shop; and manages many other phases of the paperwork involved in running an organization the size of *Macon*.

The Education and Training officer (see page 46) functions as a staff assistant to the exec in the administration of the ship's training and education program. With the Planning Board, he plans and coordinates all shipboard training.

Macon's chaplain and his enlisted



MACON'S executive officer CDR W. J. Hughes, Jr., talks over problem with ship's medical officer LT C. B. Sledge.



EXECUTIVE STAFF has many responsibilities. Mail for cruisemen is sorted and (left) ship's library is put to use.

assistants are, of course, the men who minister to the religious and spiritual needs of the men of *Macon* (see page 41).

He also supervises the administration of the Crew's Library, which, thanks in part to its air conditioning and recent remodeling, is an especially popular hangout on board.

THE LEGAL OFFICER and his enlisted assistants could be considered the justice department of CA 132. For instance, here are some of the phases of the legal officer's duties: Advises the CO and exec on the interpretation and application of the Uniform Code of Military Justice, the Manual for Courts-Martial and other sources

of military law; makes sure personnel assigned to legal duties are well-versed in those duties; works with division officers and the education and training officer to see that the men of *Macon* know their rights and obligations under the Uniform Code of Military Justice; and supervises the technical and clerical preparation of legal matters.

PERSONNEL OFFICE of exec is responsible for assignment of enlisted men to proper division of ship and takes care of enlisted personnel records.

The Chief Master-at-Arms and his men are familiar figures to even the newest arrivals on board *Macon*, for they function not only as a police force, but also as guides and "official greeters," and take care of such odds and ends as the Lucky Bag and the supervision of rigging and unrigging for church, movies and other special functions.

In their line of duty they see to the many "little things" that keep a big organization running smoothly and effectively. For example, they: Enforce Navy Regs, Ship's regulations and other directives; see that the crew turns out for reveille, GQ and the like; keep silence after Taps; help process new drafts of men by seeing that their records are picked up and delivered to the personnel office, and that each new man is assigned a bunk and locker; keep mess, pay and store lines running smoothly; make sure the ship and its gear are kept clean and in order; furnish escorts for the CO, exec and high-ranking visitors during inspections and other functions; and see that regulations and instructions regarding visitors are adhered to.

—Jerry Wolff.

ALL HANDS



TO YOUR GOOD HEALTH

"WHAT TO DO 'til the doctor comes" isn't much of a problem in USS *Macon*, for no matter where the ship goes, she carries first-rate medical and dental facilities right along with her.

Among these facilities are: An operating room, a two-chair dentist's office, a 14-bed sick ward, a four-bed isolation ward, a diet kitchen, a combination pharmacy and bacteriological laboratory, a treatment room in which sick call is held, a doctor's office and an X-ray darkroom with a complete processing outfit. Because air conditioning is almost a necessity for keeping patients comfortable in the tropics, these spaces are air-conditioned. However, aside from that note of "luxury," they are almost as compact and utilitarian in their way as is the inside of a gun turret in its way.

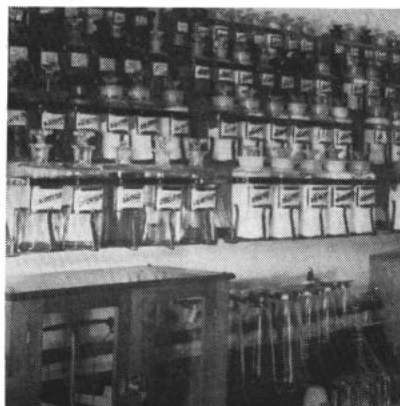
Macon's medical department is headed by C. B. Sledge, LT (MC), USNR, who is medical and H Division officer. Its staff includes one HMC, two HM1s, four HM2s, three HM3s, one HN and four HAs. Just about all of them have seen service with the Fleet Marine Force, and one—F. G. Baggio, HM1—has the Silver Star and Purple Heart medals to show for it.

Naturally, the first concern of the Medical Department is care for the sick and injured, but that is not its only function. For instance, in carrying out some of its other responsibilities, the department: Takes whatever measures are necessary for the prevention and control of disease; inspects the ship's living and working spaces to find and eliminate conditions which might endanger the health of the crew; examines messmen, food handlers and food-handling spaces at regular intervals; conducts training programs in health, hygiene and first aid; assists local health authorities in their inspections; and advises the skipper of quarantine regulations which affect the ship.

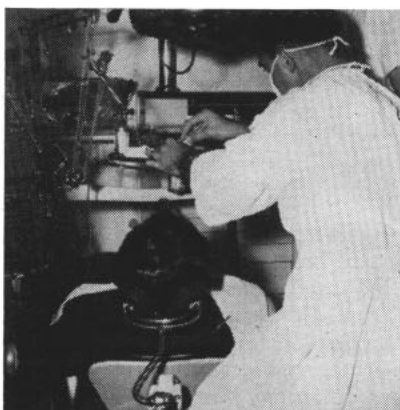
To show how thorough the doctor and corpsmen are in their efforts to safeguard the health of *Macon's* men, here are just a few of the items they regularly inspect—heads and showers, the barber shop, the soda fountain, laundries, drinking fountains, galleys, the butcher shop, the bake shop, spud lockers and scul-

leries. In addition, the doctor takes such measures as checking the week's menu for the general mess to make sure the crew is getting enough to eat and the right amounts of vitamins, minerals and the like.

During their normal, day-to-day routine *Macon's* corpsmen spend considerable time in the sick bay area, where sick call is held from 0830 to 0930 and emergency care is available 24 hours a day. There, the pharmacy and supply technician who is



hospital chief supervises the medical records office and, generally speaking, supervises the other corpsmen and takes care of administrative matters. One of the HM1s doubles as operating room technician and division petty officer. The other is both an X-ray technician and police petty officer of the division.



Of the four HM2s: One is in charge of the treatment room, where he screens patients and takes care of minor ailments and injuries; one helps keep the large assortment of records required of the department; a third serves as an assistant operating room technician and makes sure

that space is kept shipshape and supplied; and the fourth is in charge of the ward, where he maintains patients' charts and other records and sees to the medication and general comfort of the patients.

The HM3s include an assistant to the man in charge of the ward, the man who runs the medical supply room and a lab technician. The HN, as pharmacist, compounds and dispenses medicines and takes care of the record-keeping that goes along with the job. The four HAs serve as orderlies and perform a variety of jobs designed to give them a well-rounded basic knowledge.

Besides taking care of their routine duties, the men of the department are also called upon to go out in the whaleboats during man overboard drills, be on hand for helicopter launching and recovery operations, serve with landing parties, stand by during highline transfers and take part in many other activities where medical assistance might be needed. And, of course, they have battle stations throughout the ship for GQ.

In battle, *Macon's* Dental Department becomes part of the medical organization. However, during ordinary routine it's a separate outfit.

It consists of the dental and D Division officer—J. E. Sullivan, CDR, USN—one DT1 and one DA. Since *Macon's* crew numbers more than a thousand men and the Navy is authorized one dentist for every 500 men, Dr. Sullivan has a large enough practice to keep two dentists busy. He averages between 10 and 15 patients per day during regular office hours and is also available outside the regular hours to take care of emergencies. Both the DT1 and the DA assist the dentist in taking care of patients. In addition, the first class handles the property accounting and most of the other administrative and clerical work of the department.

Although D Division can make repairs to dentures, it is not equipped to offer all the services of a Navy dental installation ashore. However, as anyone who's ever had a toothache will agree, it's still a mighty handy outfit to have around when there are thousands of miles of ocean between you and the nearest shore-based dentist.

—Jerry Wolff.

Just Keeping in Touch



MACON'S VOICE BOX — Navy technicians tune one of the SRT transmitters in Radio II. Radio II is primarily a transmitter station for the heavy cruiser.

EVERY MOVE a ship makes, every port it enters or departs, every operation in which it is involved, requires one or more messages to a specific person or organization. To communications falls the unique and constant task of putting these messages through.

A great part of communications comes under the control of radiomen. Like most ships, the heavy cruiser *USS Macon* (CA 132) has three radio rooms which are loaded with complicated equipment, operated by these radiomen. These rooms are known as Radio I, Radio II, and Radio III.

Radio I contains most of the ship's receiving equipment. This includes receivers and teletypes which are set up so that each receiving position has a key for remote control of the transmitters which are located in other parts of the ship. When a message is received in the conventional manner or by teletype, it is logged in, written up, signed by the Communications Watch Officer, printed,

and delivered to department heads throughout the ship. These department heads usually initial to confirm that they have seen it, tear off a copy and take the necessary action required.

Radio I is also the headquarters of the supervisor. Before assuming his daily duties he gathers all available information concerning circuit conditions, special orders, cruising disposition, traffic on hand, acknowledgements and replies pending, guard ships, control circuits in use, frequencies guarded and transmitters in use. He also sees that all necessary publications are in the radio room. In other words, he is ready to take action on anything that might come up.

Radio II is primarily a high-powered transmitter station for the ship. The men in this space are responsible for changing and keeping transmitters in tune and selecting different frequencies used in Radio I. The selected frequency is connected to the correct key by "patch-

ing" the circuit into Radio I. This is like the old-fashioned telephone switchboard. When you call the operator (Radio II) a cord is plugged into a hole. The person you want to talk to (Radio I) is reached by plugging in the other end of the cord and the connection is complete.

Radio III is more or less a complete radio room in itself and contains several transmitters and receivers. It is set up in case anything goes wrong with Radio I or II. The operators can take complete control from here and either send or receive. It also contains its own independent power supply which can be cut in if the normal ship's power goes out.

Remote control transmitting and receiving positions are located in the bridge, flag bridge and CIC. The receivers in Radio I and transmitters in Radio II and III can be connected from these points just by dialing the desired frequency. This is important during operations, when much of the radio equipment must be patched in order to maintain constant knowledge of everything taking place within your own ship and others connected with the operation.

In order to keep all of this equipment up to peak efficiency and assure that there are qualified radiomen to operate it, there must be a constant training program.

Macon, like most other ships, has its difficulties. Transfers and separations seriously reduce the number of qualified communicators. Part of this problem was overcome during the three-and-a-half month yard period in the Boston Naval Shipyard.

With permission from *Macon's* commanding officer and the District Communications Officer, space was obtained in a building behind the First Naval District headquarters. This was furnished with tables which were wired for operating positions for 18 men. Using basic code records and oscillators, these men, striking for the rate of radioman, were soon brought up to Fleet broadcast speed of approximately 18 words per minute. This was accomplished by "pouring" the code into them for five hours a day. The remainder of the time was concentrated on copying Fleet broadcasts with introduced interference like that encountered aboard ship. The training included sending and circuit procedures.

When the ship got underway all men were assigned to watches. Advanced strikers copied Fleet broadcasts and handled Fleet circuits. Others became back-up operators. A man was advanced to copying or circuit-handling only after he was considered qualified. At the same time, those who were already qualified became assistant supervisors.

The training on board ship never seems to end. Drill circuits are in operation within the ship during General Quarters and off watch periods. Senior operators are assigned as circuit control. Monitors give necessary instruction and criticism upon completion of each drill. During General Quarters, off watch periods, and while on watch, unoccupied men are given instructions on other necessary requirements of communications. This includes basic maintenance of equipment, tuning and calibration of transmitters and receivers, and a knowledge of the capabilities of the equipment on hand.

Correspondence courses are obtained as soon as possible in addition to required "open book" courses given by division training petty officers. Upon completion of these, the men striking for radiomen of all rates must take a divisional examination. If all requirements are met and examinations are satisfactorily passed, the striker or petty officer is recommended for advancement.

Another part of communications includes the *signal bridge*. As with radio, the signal bridge is never left unattended. From here, all visual messages are handled by flaghoist, flashing light, and semaphore by the 23-man gang. The number standing watches varies in size and composition, depending upon operating conditions.

Visual messages are normally cleared through the communication office, although those of immediate importance are first delivered directly to the captain and officer-of-the-deck, or are sent out directly from the signal bridge as ordered by them.

A constant training program is being conducted for and by all men in the signal gang. Competition is stirred up when the men are divided into groups to work the two flag bags. Up will go a flag hoist from the starboard bag. Someone from the port side reads it and his gang immediately replies with flags from their bag. Then the process is re-



KEEPING IN TOUCH — Communications has the unique and constant task of putting messages through. Message begins by phone via antiaircraft control.

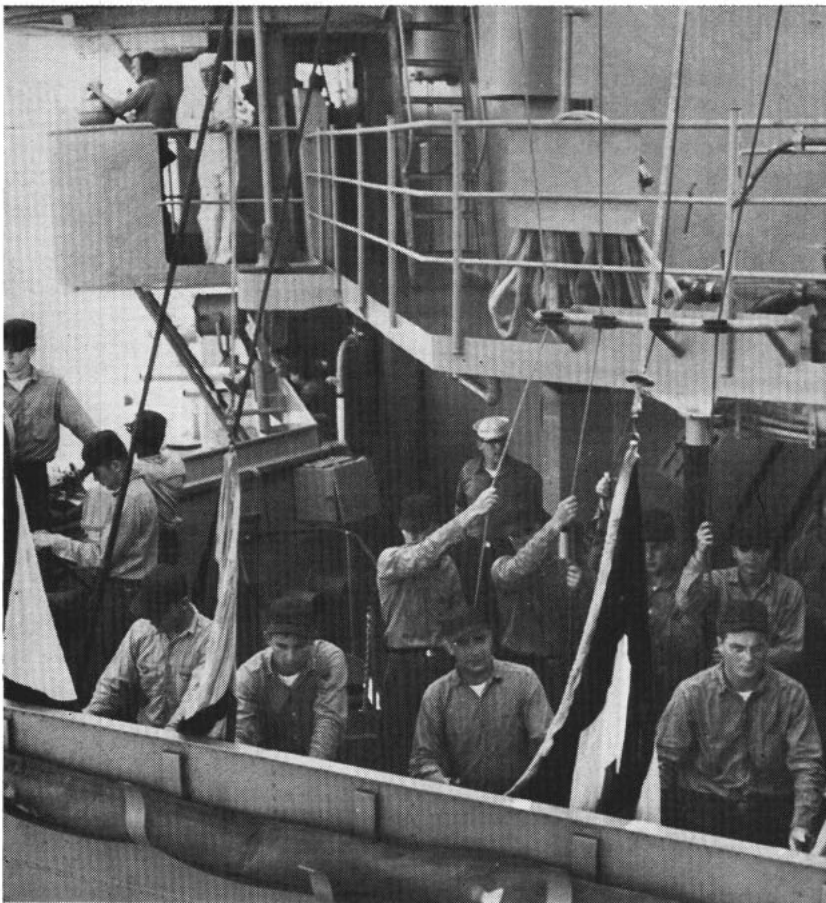
versed until the drill is completed. Then there is practice in sending and receiving flashing light and semaphore.

There's a reason for all this training and it paid off for *Macon* while the ship was at Guantanamo Bay, Cuba. One phase of the exercises

that ships undergo during Refresher Training includes the ability in handling a number of visual messages. Until *Macon* arrived on the scene, *uss Canberra* (CAG 2) had set the record for sending and receiving 518 visual messages based on a seven-day week. *Macon* not

FLASHY—Signal searchlight is operated from signal bridge of *USS Macon*. Visual communications are handled by members of the signal bridge gang.





TAKE A LETTER—Full complement mans *Macon's* flag bag and downhauls. Below: Shipboard communications is important in gun turret operation.



only tied them but went on to set a new record of 583. All 23 men shared in setting this new record.

Visual communication devices are usually divided into three major types: flashing light, semaphore, and flaghoist.

Flashing light communication is nothing more than a visual telegraphic system using the International Morse Code. Messages are sent by two general methods—directional and nondirectional. Searchlights are used to aim directional flashes at a particular receiver. The dots and dashes are determined by using a shutter to break the flashes.

Nondirectional flashes come from blinkers which are located on the ends of the yardarm and controlled by a radio key on the bridge. They can be seen in any direction. The all-around blinker lights are used mostly to send a quick and simultaneous message to a group of ships within visual distance.

Infrared rays serve as a means of sending night visual messages. A filter is placed over an ordinary searchlight to block out white or visible light and passes only the infrared rays.

Flaghoist signaling is one of the most rapid and accurate visual methods when in easy signaling distance in daytime. It normally is the primary tactical maneuvering method of transmission between surface units whenever visibility permits. Signals are repeated by the addressee, which provides a sure check on the accuracy of reception.

Semaphore and flashing light can be used interchangeably for many purposes. But semaphore is more rapid for short-distance transmission during daylight hours. Because of its speed, semaphore is better adapted to the sending of long messages. When radio silence is placed in effect, semaphore is the best substitute for handling administrative traffic during the day.

The primary functions of all communications on any ship or station is to clear outgoing traffic with a minimum of delay, receive messages correctly, and disseminate incoming information to those concerned.

To carry out these functions the skilled technicians of communications on board *Macon* stand their watches from one of the radio rooms or from the signal bridge around the clock, seven days a week.

—Thomas Wholey, JOC, USN.

ALL HANDS

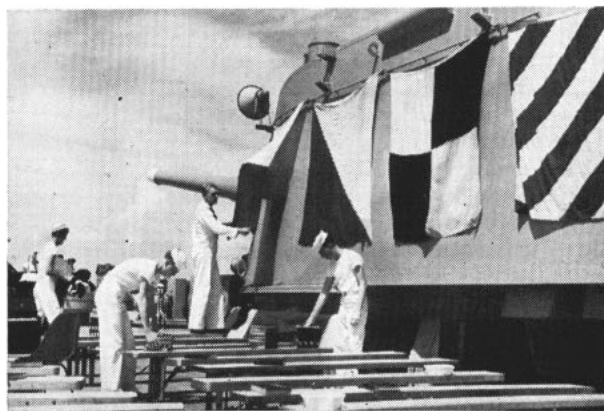


FANTAIL CHAPEL—Macon men answer church call. Below: Chaplain's assistants make ready for topside services.

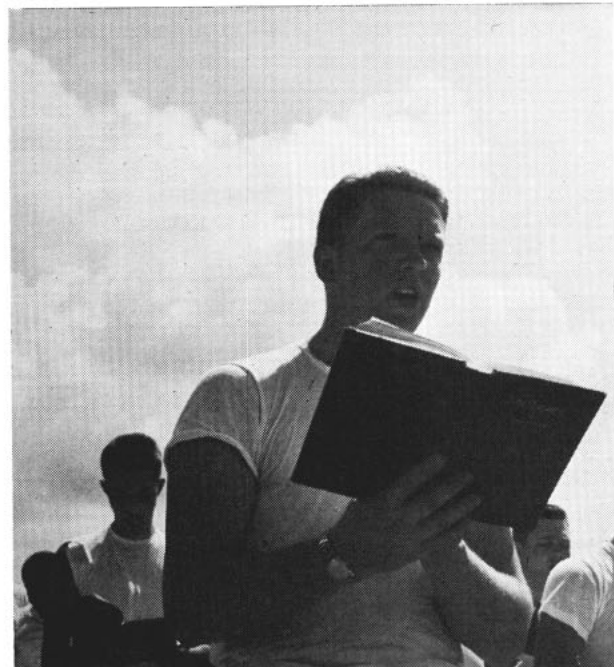
Service at Sea

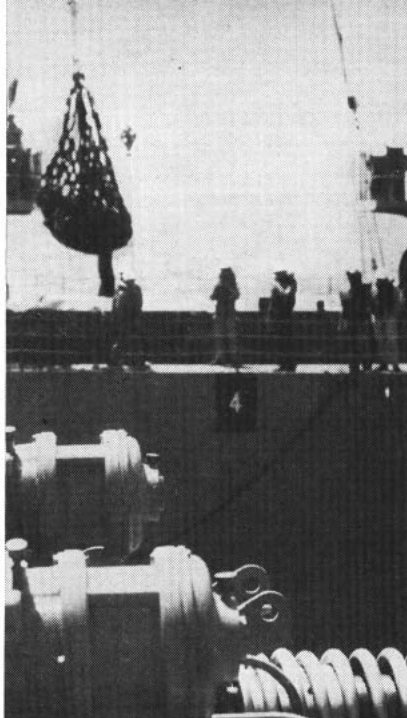
FROM THE EARLIEST days of the Navy, the Chaplain's major duties have, of course, been religious. It is his basic responsibility to conduct divine services, administer the sacraments of his church, teach the principles of his religion and officiate at religious ceremonies. No matter what his own faith, a Chaplain may offer spiritual comfort to men and women of any denomination.

As *Macon's* Chaplain, Ralph W. Below, can testify, the duties of a Chaplain may extend to many other areas. For example, among his collateral duties are supervision of charity drives, the hobby shop program, coordination of VIP affairs and planning of tours for the ship's crews. Much of his most important work is accomplished through informal chats and discussions.



SINGING SAILORS—Cruisermen sing hymns. Rt: Ship's organ is set up by M. Westfall, SA, and D. Goodwin, SN.





SHOPPING AT SEA—Important job of Supply is keeping the ship replenished while at sea. Here, ship receives order.

You Name It, They Have It

WHEN THE NEW washing machine was placed in *uss Macon* (CA 132), it marked the first time the crew in the laundry had ever seen sunlight enter their working space. This laundry, located two decks below the main deck on the port side, is about the closest you can get to perpetual motion. If you're curious as to how the sunshine came into the laundry space, you'll find the answer in the following pages.

The laundry is run 24 hours a day, seven days a week. Yet the men working in it are part of the S-3 division that has the highest reenlistment rate of any division on the ship. What's more, between 85 and 90 per cent of the men in it are enrolled in the Navy's correspondence course system.

The division is one of five in the Supply Department.

A paragraph out of *Macon's* organization manual gives a close look at the Supply Department's responsibility: "... for the procuring, receiving, stowing, issuing, and accounting of the ship's stores and parts, except as specifically assigned to other departments; the operation of the general mess and ship's store, the sales and issue of clothing and small stores; the supervision and coordination of accounting and inventory functions not specifically assigned to other departments and the supervision of disbursement."

Does this sound familiar? It should. Because supply aboard *Macon* is not much different from that of any of the other ships in the Navy.

There are five divisions in the Supply Department of *uss Macon*: S-1 (Stores), S-2 (Commissary), S-3 (Ship's Service), S-4 (Disbursing) and S-5 (Steward Branch). Each has a definite mission and a job to do.

The S-1 division has the job of keeping 18 storerooms loaded with GSK items in spare parts, electronics, machinery and ordnance. In this respect, it takes care of the ordering, stocking and issuing.

Not so long ago, keeping track of each item was often a frustrating job. All this has been changed. Possibly the change was brought on by the motto which was so well-known in boot camp—a place for everything and everything in its place. In any event, you no longer have to pore through a large box of wrenches to find one particular size. The size you want is in one box or, as it is known today, a bin.

To get to the bin stowage stage, there had to be a pre-binning stage. This was done while the ship was in Boston and involved many grueling and sometimes many hair-tearing man-hours of work.

The shipyard workers set aside one entire floor of a building where

all spare parts from the ship could be laid out, sorted, tagged, and catalogued with the new federal stock numbers and the old stock numbers. Then Stock Record Cards (some 6000 aboard *Macon*) were made out and retained by the S-1 division. As one wrench (for instance) is drawn, an item by item check is kept. Storekeepers in charge of storerooms issue the necessary supplies. And they know unless they take the necessary steps to replenish, the next time a consumer needs the same material it may not be available. So they bring the supplies up to their proper "high."

There is no real high for all items. It all depends upon how many and how often these items will be drawn. For instance, the high number of wrenches of a certain type could be 200. The low number to be reached could be set at 100. This would mean that when you took stock and the number of wrenches remaining was getting mighty close to the 100 mark, it would be time to bring them up to the high of 200 by ordering the difference of the number you have and the number you need.

This system could, and has been, carried to extremes. Take the case of the seaman who was keeping a running system of highs and lows. The idea planted in his mind was if you had a high, keep it there. So when the high for rubber hose was

set at 165 feet, he checked his card and found that there were only 164 feet on board. He put in for one foot of hose and *he got it!*

Feeding more than 1200 men in this ship is the job of the S-2 division. The setup is not much different from your own ship. But the crew of *Macon* will tell you most emphatically that she's the best feeder in either ocean.

The food is broken out of one of the five storerooms or removed from one of the six iceboxes. Meat is dressed in the butcher shop and delivered to the galley where the aroma of well-cooked food has the nasty habit of tantalizing hungry crew members as it wends its way through the vents. Food is served cafeteria-style and the menus leave nothing more to be asked. There is always plenty on hand since the ship carries a total of 300 tons of provisions. Included in this are 90 days of dry provisions and 45 days of frozen. While at sea, 180 loaves of bread are made each day in the bakery, sliced, turned over to the galley and consumed by the crew. Last year, the men in the bakery achieved their crowning success—a 400-pound ship's birthday cake.

Another division in Supply is S-5; the Steward Branch. These men prepare and serve meals for the captain, officers in the wardroom and warrant officers and are responsible for the cleanliness of the wardrooms and staterooms.

The smallest division in Supply, but perhaps the largest in the minds of the crew on the scale of economic importance, is S-4 (Disbursing) division.

In addition to paying the crew, the office provides a limited amount of tax information.

They also handle money for purchasing stamps and postal money orders for the post office and pay all public vouchers for items bought on open purchase. Paying the crew, even if it does involve handing out money at three different times on pay day (and sometimes on Sunday), is not such an arduous task. The real headache pops into disbursing before and after pay day. Each man's pay record must be computed, checked and recorded, and a pay list typed and distributed.

The big job comes after pay day, when all stragglers have been paid. That's the time you go knocking at the door and there's no answer. You

go away mumbling to yourself, "I know they're in there. I heard some-one cussin'."

They're in there. And you can believe that they are working up a sweat. Some 1200 pay chits have to be sorted, arranged in alphabetical order and the amount drawn by the individual typed on his pay record alongside the amount due. Then three men gather around. One sounds off—and pay records, pay chits and pay lists are checked against one another. This checking must come out to the dollar.

The average pay roll on *Macon* comes to a little over \$55,000. While at sea, about one-third of this amount goes back into the ship either in making out postal money orders or through one of the stores.

The responsibility for the three stores that help provide some of the comforts lies with the Ships' Service or S-3 division. These are the ship's store, soda fountain, and clothing and small stores.

On most ships and stations on pay day, one of the first places to form a long line is at the ship's store. *Macon* is no exception. It is a familiar sight to watch a man inch his way forward and then, after making his purchases, stagger away with a two-week supply of cigarettes, toilet articles and other items that help to make a sailor's life happy. There is another line leading to the clothing and small stores issue room where any of the hundreds of items of clothing can be bought to bring a seabag up to snuff.

But it's the soda fountain and the soft drink dispensers that have the

ability to draw nickels and dimes out of the sailor's pockets from one pay day to the next. In a two-and-a-half-month period aboard *Macon*, 31,000 candy bars were consumed; 11,000 seven-ounce tins of juice were purchased to help quell a growing appetite and 61,000 soft drinks came pouring out of dispensers and disappeared down the hatch. When ice cream is listed on the menu for the general mess, the two men who operate the store spend some three hours making enough ice cream to fill from 850 to 900 individual cups.

A unique system worked out by the S-3 division is the display method which is used while the ship is in foreign ports. Between meals, the tables on the mess deck are used as display cases for materials and souvenirs which are indigenous to that port. With the wares laid out in full view, the men can take a casual stroll among the tables, pick up the items they want and pay for them at the other end.

The purchases made at these stores help determine the amount of money that goes into the ship's recreation fund. Here's how it works. A specified percentage mark-up above the cost price of stock is allowed for ship's store profits. These profits are the primary source of a ship's recreation fund. But before any profits can be turned over to the commanding officer, certain deductions must be made. If the ship's store makes a profit that amounts to more than 15 per cent of its total cash sales, the amount in excess of this 15 per cent is deducted for transfer to the Ship's Store Profits, Navy, General Fund.

CLOSE TO THE HEART—Supply Department of USS *Macon* performs many tasks to make sailor's life at sea pleasant. Here, cruisermen enjoy chow time.





SOMETHING TO SMILE ABOUT — Cooks of the commissary division of USS *Macon* smile as they pose by pans of turkeys they prepared in ship's galley.

Vending machine sales and profits are excluded from this provision.

The ship's store is also assessed one-half of one per cent of the cash received from total sales. The Bureau of Supplies and Accounts makes this assessment and deposits the proceeds in the General Fund which has been set up to help ship's stores during operating emergencies and to assist in the purchase of vending machines. When this assessment is made, the ship's store is notified by letter of the amount assessed.

Another deduction from profits is made to cover any amounts obligated, such as monthly repayments of loans. A fourth deduction covers the value of any soiled, unfit or damaged items of ship's store stock that have not been covered by survey or mark-down.

After these deductions have been made, the value of material, equipment and services necessary to operate the store and its related service activities is deducted.

IMPORTANT division of Supply Department is S-4 with the responsibility of paying the crew members.



The profit that remains is transferred to the commanding officer who transmits five per cent of it to the Central Recreation Fund of the Bureau of Naval Personnel and uses 95 per cent for the ship's recreation fund.

The S-3 division is also responsible for the operation of the barber shops, cobbler shop, tailor shop and laundry.

Possibly the place whose end product comes under the closest scrutiny by the commanding officer is the Barber Shop. It has the white gleam which is so prominent in most tonsorior parlors, and is kept as neat and clean as any you'll find in any of the finer hotels.

On *Macon* the chit system is used. One hundred of these chits a day are picked up in the morning by division petty officers and distributed to those needing haircuts. The number of chits distributed to divisions depends upon the size of the division. To ease the waiting, and to help division POs let their men off to meet their appointments, the time and chair number is printed on the chit. There is no charge for barber service. And there are very few complaints from the customers.

Nor is there a charge for repair work done in the cobbler shop or the tailor shop that takes care of minor tailoring needs such as repairs, alterations, and sewing on braid and rating badges.

About that sunlight seen by the men in the laundry which is also in the S-3 division. They were having their troubles. They needed a washer large enough to handle a tremendous amount of clothes and durable enough to be run 24 hours a day, seven days a week. One was ordered.

But it proved too large to get through hatches or down ladders. There was only one thing to do—cut a hole in the side of the ship. Naturally, the side was patched and the sunlight once again shut out. But—they had their moment.

When it's your job to handle the laundry of more than a thousand men, it's a good idea to have some sort of system. Here is how the system works aboard *Macon*.

Officers' laundry is turned in Monday and returned Tuesday; CPO's, in Wednesday and returned Thursday. The laundry of the other six pay grades receives special handling. If their laundry is turned in in the morning, they get it that afternoon.

When received, the clothes are separated and if there is no identifying mark, one is stamped on. The clothes are then put into the big washer which is actually four separate washers in one—each independent of the other. The four will handle 350 pounds of clothes at one time.

Up to 15 gallons of starch can be made in the starch cooker. The correct amount is mixed with shirts and other finished products during the washing process. The clothes are removed from one of the four-in-one washers and placed in one of three extractors. Each of these will hold 73 pounds of wet clothes. After most of the water has been shaken off, the process moves on to the dryers.

When clothes come out of the dryers, flat material is run through the mangle. Other articles go to one of the presses. These include a sleever, collar and cuff, bosom press and the standard 38-inch and 51-inch presses. With this equipment on hand, it is possible to press two suits of whites for each man every week.

When you consider that the Supply Department handles such matters as procurement, receipt, stowage, issue, and accounting for equipment, repair parts, and consumable supplies which are required to support the ship's operations, you get some idea of the job done by supply. But an underlying factor that flows through this department—noticed or unnoticed—is morale.

If you are assigned to a ship that gives you the materials to work with, pays you on time, feeds you well and keeps a well-stocked store, your own job is made easier. For this, thanks can be cast in the direction of your supply department.

—Thomas Wholey, JOC, USN.

ALL HANDS



MACON MARINES stand shipboard inspection and (right) ship's Marines receive promotions and congratulations.

Cruising Leathernecks

MARINES HAVE been serving in Navy capital ships since the beginning days of our history. You'll find a sharp unit of these sea soldiers serving on board the heavy cruiser *USS Macon* (CA 132).

The mission of the Marines of *Macon*, as well as the other ships to which they are assigned, is clearly stated:

"To provide a unit organized, trained, and equipped for operations ashore, as part of the ship's landing force; as part of a landing force of Marines from ships of the Fleet or subdivision thereof; or as an independent force for landing operations."

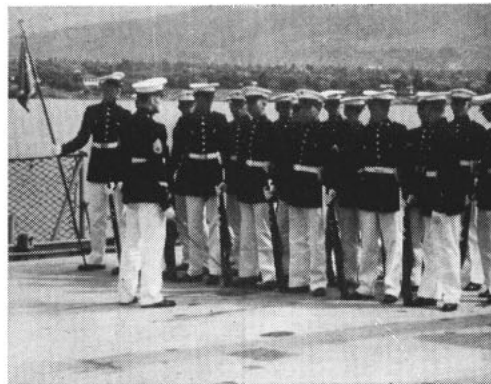
Although these cruiser-based Marines stand ready to perform their prescribed mission at any time, if necessary they also carry out many important shipboard duties.

When General Quarters is sounded over *Macon's* loudspeakers, the Leathernecks rush to their battle stations with the rest of the ship's crew and man two of the cruiser's 3-inch 50-caliber anti-aircraft mounts.

During usual shipboard routines they furnish internal security for the ship. They stand brow watches in port and shark guard at sea. When *Macon* hauls out her big punch, *Regulus* guided missile, a special detachment of Marines stands by to keep unauthorized persons from restricted areas. Other important duties

include furnishing bank guard for the ship's disbursing officer, orderlies for the Captain, and other sentries when the occasion arises. For special guests or occasions *Macon's* Marines muster in full dress to give the proper honors.

The cruisemen are as proud of their detachment of United States Marines as the sea-going Leathernecks are proud of their sea station—*USS Macon* (CA 132).



SHARP SHOOTERS — Marines serving on board *USS Macon* do fine job manning ship's two anti-aircraft mounts. Above: Honor guard stands by for visitor.



UNDERWAY TRAINING

UNDERWAY TRAINING such as that experienced by USS *Macon* while working with the Fleet Training Group out of Guantanamo Bay, Cuba, is essential in preparing for combat operations, but this must be based on plain old fashioned book learning.

For example, take the duties of a radarman serving in *Macon's* CIC. From books he learned what he would see on his screen and how to focus and tune the equipment. During underway training he achieved the skill necessary to safeguard the ship from surprise attack. But book learning served as the foundation for his skills.

Providing this book learning is the job of the Training Office on the heavy cruiser. From this small office located on the centerline of the second deck, *Macon's* training pro-

gram—which not only includes the usual USAFI and Navy Correspondence Courses, but also an elaborate Basic Shipboard Training Program—is administered.

This shipboard training program is designed primarily to provide a smooth transition from civilian to military life for young men who have been in the Navy only a short time. The program provides for both rate training and general indoctrination.

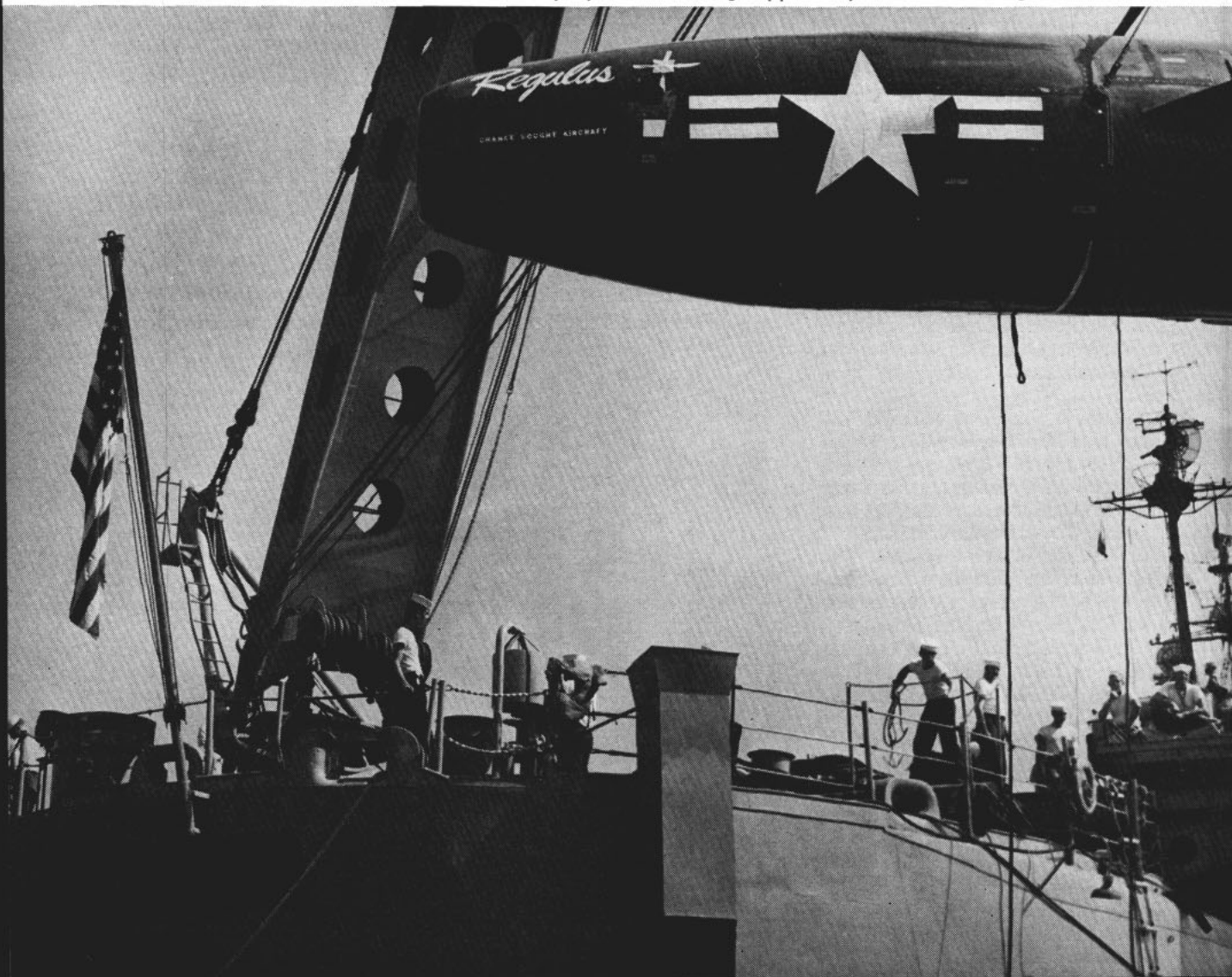
The administration of the Basic Shipboard Training Program is one of the biggest tasks assigned to the Training Office, headed by LTJG E. J. Sullivan, *Macon's* education-training officer, who is assisted by a PN1 and three YNs. A three-month program, which includes 14 different subjects for enlisted men, with a fifteenth added for junior officers,

has been developed. Division officers, junior division officers, doctors and chaplains serve as instructors.

The manual for *Macon's* training program includes such courses as: Discipline and the UCMJ, leadership, naval etiquette, safety precautions, physical fitness, security, small arms, basic damage control, rights and benefits, swimming and survival in the water, visual recognition training, character guidance and first aid. Another subject is the four-part general basic training guide: The Navy, the man, the ship, and basic seamanship. Also listed is a basic orientation study for junior officers.

A panel of technical advisers assists instructors in developing the finer points of the subjects they teach. For example, the first lieutenant and the ship's boatswain are consulted by instructors on basic seamanship,

LEARNING BY DOING at sea has to be backed up by book learning supplied by *Macon's* Training Office.



while one of the Marine Detachment officers supplies information concerning small arms. The courses are broken down into numerous sub-topics in the lesson plans provided by the training office. These outlines also include suggestions for class discussions.

For example, under the broad heading of "safety precautions" are numerous minor subjects including "safety at the mount." According to this section of the lesson plan, alertness and obedience as applied to safety should be covered by the instructor along with the definition of "silence." The individual's responsibility in handling ammunition is covered with the following points emphasized: Protect nose fuse; handle gently; and carry or pass ammunition to its destination. As the instructor finishes this phase of the safety precautions subject he concludes by stressing that safety depends on teamwork.

The principle objectives of Macon's training program are accomplished through instruction, demonstration and drills while on station and performing actual tasks. Every phase of shipboard life is covered by the program. Petty officers in charge of sections demonstrate to their men the proper techniques of cleaning hull, machinery, fittings and equipment. When possible, strikers and operating personnel carry out routine preventive maintenance procedures under the eyes of their petty officers. Every bit of repair work whether accomplished by the crew or in the yard, is utilized as an opportunity for instruction.

Watch standers are rotated from one watch to another of a different nature as soon as they are proficient at the first duty post. Manning battle stations is another opportunity for intensive training aboard Macon. The first half of the drill period is normally spent in coordinated and departmental drills, while the second half is devoted to on-station instruction by officers and petty officers.

This type of training deeply impressed a visitor to Macon when he observed a BM1 directing the launching of a small boat. The boatswain's mate had gathered his section around him and was explaining the proper way to accomplish the task and the necessary safety precautions. He followed up his lecture with a quick, but effective, question



and answer period on the lecture.

Supplementing this training is the USAFI program for which Macon is an official testing station. Some 50 to 75 General Educational Development (GED) tests are given each quarter to sailors completing their high school work, seeking college credits, or just aiming at improving the old brain. The applications for 100 or more USAFI courses are submitted each quarter through the Training Office which takes care of the necessary paperwork for the applicants. However, it is up to the men to finish the courses they start and according to LTJG Sullivan, "Most of them do, judging from the number of completion certificates that come in."

Navy Training Courses also provide a great deal of work for the Training Office staff. Some 150 training courses are requested each quar-

ter. Once they are received they are administered on a divisional level, with lessons submitted to division officers for grading.

In addition to these courses, the Training Office's large library covering nearly every naval subject and including training volumes for nearly every rate is available to men studying for advancement in rate, attempting to change their rate or just attempting to learn more about the Navy.

All requests for Navy schools, both officer and enlisted, are submitted through the Training Office. This office also administers the Fleetwide advancement tests, examinations for special programs such as the Navy Enlisted Scientific Education Program, and maintains two boards which conduct fireman and seaman examinations.

—William Prosser, JOC, USN.

Radio Macon Makes a Big Hit with Shipboard Talent

Some radio listeners like their music hot, some like it cool. Certain listeners go for an exciting report of world happenings, while others like an action packed sport-cast—but regardless of where your taste lies, *Radio Macon* aboard the heavy cruiser of the same name, provides all this and more too.

Continuous background music is piped through the ship on one of the two RBO channels assigned to the shipboard radio station while the other channel carries live broadcasts from the Armed Forces Radio Service plus programs originating in the broadcast studio on the ship's mess deck.

Radio Macon is set up in much the same manner as many civilian radio stations. It has a conventional type outlet (RBO Channel 4) for news and sports programs, and for disc jockey and special shows. Channel 3 of the RBO system is operated much like Stateside FM stations. It supplies various parts of the ship with continuous background music. In port the melodies, designed to make the daily routine easier, are usually received on FM and rebroadcast throughout the ship. At sea, long-play records are the source of the musical selections.

A visit to the nerve center of Radio Macon will usually find Stephen D. Lapin, SA, USN, on duty either at the console controls or repairing equipment. Lapin had technical radio training in civilian life and was a natural for the full time job of station manager because of his ability to double as a circuit trouble shooter.

Another *Maconite* who devotes a great deal of his off-duty hours to the studio is LTJG George H. Overstreet, USN, who was designated officer-in-charge of Radio Macon at its beginning. In this capacity he monitors the programs, buys supplies and trains announcers who volunteer for programs on Radio Macon. At present eight volunteers handle the announcing chores.

The broadcast studio is set up in a professional manner in a space once devoted to the electronic equipment of a 3-inch 50 cal. mount which was displaced by the *Regulus* missile installation. This port-side compartment is divided in half by the console panel. An impressive

array of instruments and switches is used by the operators to control the output on both channels and turn microphones and turntables on and off. When the station is on the air a panel-mounted loud-speaker lets the "engineer" who may be doubling as the announcer, monitor the programs originating from the two turntables used for record shows on Channel 4.

On the bulkhead beside the engineer/announcer is a powerful



shortwave set used to pull in AFRS stations when the ship is deployed or standard broadcast stations when in port. Like the FM receiver used to receive the programs of FM stations in the Boston area (*Macon's* homeport), or other East Coast cities the ship might be visiting, this receiver is wired into the station circuits so that the programs can be carried on the RBO system. Also wired into the system is the record-changer which provides the continuous Channel 3 music programs.

In the other half of the space is the desk where the live news and sports programs are written and broadcast. Also located there are the storage racks where the library of more than 80 popular records, 20 long-play albums, and 300 AFRS program discs are filed. Every couple of months this library is brought up to date by purchasing

records selected from the top 40 tunes in Boston plus selected new albums. "High Society," "South Pacific" and "The King and I" are examples of the albums on hand.

Except for the commercial receivers and record player, the station was built by ship's company. The panel was installed by the ship's carpenters and the wiring done by those familiar with the necessary procedures. The money for records and equipment was supplied by the ship's recreation fund and in its first months of operation Radio Macon has returned the investment by becoming one of the most important recreational items on the ship.

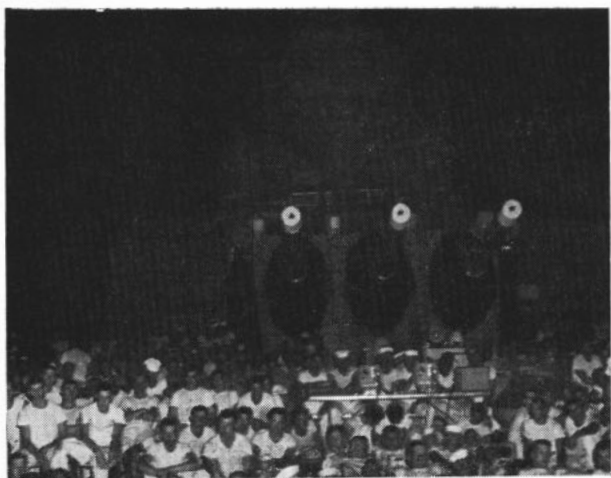
A normal day of operation will find both channels coming on the air at reveille. Channel 3 carries its background music throughout the day while Channel 4 leaves the air at 0745. The Channel 4 program schedule resumes once again at 1100 but the station shuts down at 1300 when ship's work resumes. The RBO channel remains silent until 1600 when it is air time again for Radio Macon. The programs continue until 2200 when *Macon* is at sea, but in port the station shuts down when the evening movie begins.

During broadcast hours it is not unusual to find a group of sailors sitting around outside the studio listening to the music and urging the announcer to play this or that record. In the past, the area of the mess deck around the studio has been crowded with quiz show participants or those eager to name a tune during request time programs. Music programs of all types and the AFRS shows ranging from the Lone Ranger to variety shows round out the Radio Macon schedule.

The programming future of the station is bright, with plans being made for several new shows including a series of programs on current events.

Equipment-wise the station is also growing.

Since many ships have radio stations and one even has a TV-station on board, you could not call Radio Macon unique. It is typical of what a Navy ship can do with a little enthusiasm and a lot of initiative.

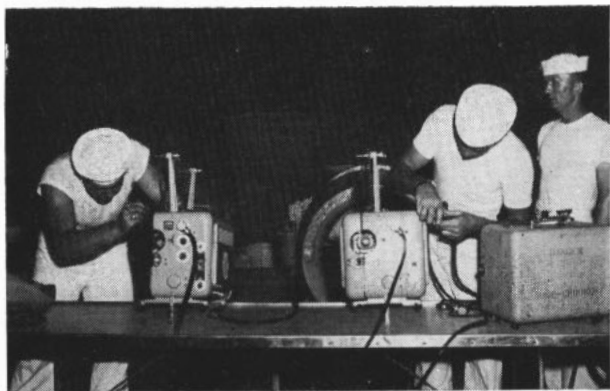
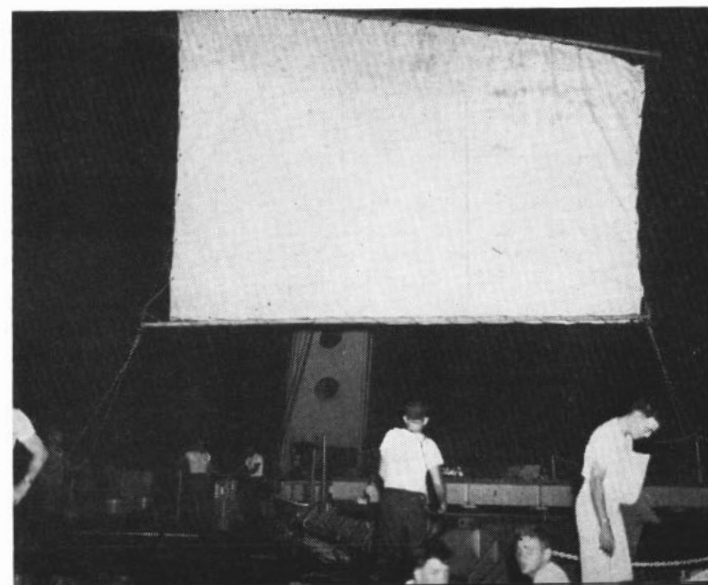
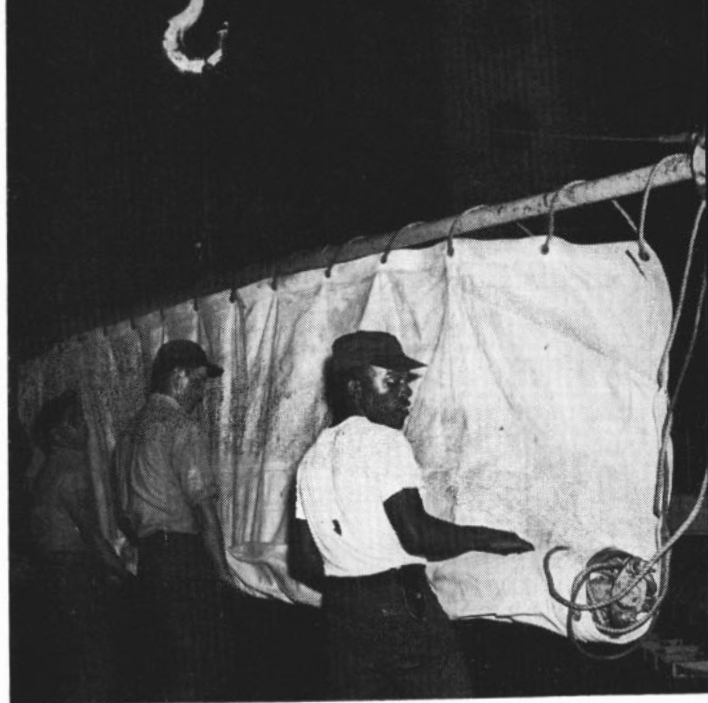


Ocean Drive-In

"NOW THE DUTY division rig for movies topside." When this word is passed through ship's public address systems throughout the Fleet all hands gather, knowing a good time will soon start on the fantail.

Navymen at sea get the latest from Hollywood and TV kinescopes through the Navy Motion Picture Service. The films are flown to ships throughout the world to keep the Navymen up to date with what's going on in movie and TV land.

Here is a group of photographs showing the duty division of *uss Macon* (CA 132) rigging for movies topside while the heavy cruiser is at sea for training exercises. *Starting below:* Projectors are squared away. Large screen is attached to cruiser's crane. (Ice is to keep soft drinks cold.) *Right:* Screen begins to unroll as crane lifts it into place. Screen in place. *Above:* Cruisermen relax and enjoy movies.



LETTERS TO THE EDITOR

YN Advancement Exams

SIR: An article in the January issue of ALL HANDS stated that the Navy Mail Course requirements for the February examinations for yeoman had been waived. Will the questions on Navy Mail which were used in the examination for YNC be included in determining the score?—H. J. P., YN1, USN.

SIR: As Senior Member of an examining board, I have been asked by yeomen who participated in the recent CPO exam if the mail questions in the examination were going to count against them or be thrown out. They cite the following notices as their reasons for asking: BuPers Note 1418 of 27 Sept 1957 which said that the Navy Mail course would be mandatory for the February 1958 examination; BuPers Note 1418 of 21 Nov 1957 which lifted the mandatory submission of the Navy Mail course for the February 1958 examination.

This same problem occurred during the August 1957 examination but, before taking it, the examinees were informed that the questions on mail would

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

not be counted. This year, no such information was given to the examinees. Could you let me know whether or not the mail questions on the February 1958 examinations for CPO will count?—R. G. B., LCDR., USN.

• *The February 1958 servicewide exams did contain questions on Navy Mail. However, when scoring exams, these questions did not count for or against those participating for advancement. The waivers, however, only applied to the February examination since the Navy Mail training manual and course became available in April.*—Ed.

Dependent's Travel

SIR: Even after reading the "Rights and Benefits" issue put out by ALL HANDS, I have come across a problem that is still not clear to me. Your article and Joint Travel Regulations clearly state that an enlisted man is not authorized to receive dependent's travel unless he is in pay grade E-4 with four years' service or is in a higher pay grade. However, the term "service" is not clearly defined in the travel regs.

Here is the problem I started to tell you about. I'm in pay grade E-4 and because I did not have four years' service I furnished the money to transport my wife from CONUS to my overseas duty station. When my tour is up here I will have three years, 10 months active duty in the Navy and one year of inactive duty in the Air National Guard. I realize that for pay purposes this time counts as four years' service. But does it count as four years' service for travel of dependents?—J. D. A., QM3, USN.

• *We'd like to suggest that you take a closer look at paragraph 1150.13 of "Joint Travel Regulations" which defines "Over four years' service." It says, "Service to be included in computing 'over 4 years' service' is any service authorized to be credited in computation of basic pay pursuant to section 202 of the Career Compensation Act of 1949, as amended."*

Using this reference and the basis of

information contained in your letter, you are entitled to return transportation for your dependents at government expense.—Ed.

Storing Civilian Clothes

SIR: We heard recently that a naval air station had granted all enlisted personnel the privilege of wearing civilian clothes while in off-duty status and allowing the civilian garments to be stored aboard the station. Previously only petty officers were granted this privilege. Under the new order, personnel in the lower three pay grades are granted civilian clothing passes after each man has shown that he has a full seabag.

I would like to know how official action on this matter might be initiated at our station. Enlisted Waves already have this privilege and we hear that other bases have granted civilian clothes passes to all of their personnel.

Do you have any information on this subject?—P. D., AN, USN.

• *"U. S. Navy Uniform Regulations" state that enlisted personnel may be permitted to have civilian clothing in their possession at naval activities ashore if authorized by the commanding of-*

Age Limit for NEASP

SIR: I have noted a discrepancy between the article appearing on pages 52 and 53 of your December 1957 issue and BuPers Inst. 1510.69B concerning the Navy Enlisted Advanced School Program.

The instruction states that an applicant must not have attained the age of 25 by 1 July of the year originally selected. The ALL HANDS article states: "In its revised instruction (BuPers Inst. 1510.69B), it has raised the age limit from 25 years to 30 years." It would be appreciated if this could be cleared up, as I have several people who are interested in this program, but unable to take advantage of it owing to the 25-year age limit.—J.J.R., YNC, USN.

• *No discrepancy, we're happy to say. The age limitation was changed from 25 to 30 by a correction to BuPers Inst. 1510.69B published with the transmittal sheet of Navy Instructions and Notices dated 25 Oct 1957. The correction reads, "On page 3, change paragraph 5b to read as follows: 'Have at least three years' active naval service and not have attained the age of 30 by 1 July of the year originally selected.'"*

—Ed.

Billets for Guided Missilemen

SIR: Please advise me on the shore duty billets open to the guided missile rating with particular attention to recruiting duty and NROTC duty.

Also, what Stateside shore duty billets are open to other ratings such as GM, TM, EN and ET which carry the *Regulus* missile primary job code number.—W. E. C., ET1 (SS), USN, M. O. T., GS1(SS), USN.

• *Shore duty billets for guided missilemen with *Regulus* missile classification code and other ratings trained in the jet-propelled surface-to-surface missile are located at the Guided Missile School, Dam Neck, Va; Guided Missile Unit 55, Port Hueneme, Calif; and NAMTC, Pt. Mugu, Calif. At the present time there are no GS or ET ratings in the allowances of NROTC units and guided missilemen are not included in the allowances of Recruiting Stations. However, they may be ordered to recruiting duty on an equal basis with other eligible ratings.*

Other GS billets for Terrier and Talos missilemen are located in Com 1, 5, 6, 8, 9, and 11.—Ed.

ficer. They may wear civilian clothes while on leave and liberty and may wear them to and from shore activities when so authorized by the commanding officer.

The wearing and stowing of civilian clothes on station is a privilege granted only by the commanding officer to deserving personnel and is dependent on the mission of the station, its physical layout, barracks arrangement, recreational facilities and security requirements.

Such a privilege, if granted, would undoubtedly increase morale but it is impracticable to grant at all stations. There is no official action for you to initiate other than to request that your commanding officer consider granting this privilege.—Ed.

Insignia of Other Services

SIR: I am a seaman with prior service in the U.S. Army and am entitled to wear the "Combat Infantry Badge." I have received conflicting information concerning the wearing of this badge on my Navy uniform and have been unable to find definite information concerning this in either Uniform Regulations or the Awards and Decorations Manual.

Am I authorized to wear this badge on my Navy uniform, and if so, under what circumstances?—C.D.S., SN, USN.

• We are certain that you view this badge with great pride and well you should. However, U.S. Navy Uniform Regulations do not authorize you to wear it on your Navy uniform.

The Combat Infantry Badge is classed in the Army as a Ground Badge and is awarded for satisfactory performance of duty while assigned or attached as a member of an infantry unit of regimental or smaller size during any period such unit was engaged in active ground combat. Other badges in the general category of Ground Badges include aviation badges and parachutist badges.

In the Navy, badges of this type are classed as insignia. The wearing of in-



THROUGH SUNNY SEAS—USS Floyd Bay (AVP 40) cruises in Pacific waters off Point Loma. Home port for the small seaplane tender is San Diego.

signia earned while in another service is not permitted on the naval uniform. The only specific reference to this in "Uniform Regulations" is found in Article 1203.2(b).—Ed.

Retired Pay at Highest Rank

SIR: I have been told I will be reverted to my permanent status—CWO, W-4—in the very near future. Since I have completed over 23 years of service, I have the option of either reverting, or retiring now.

If I did choose to retire now it would be as LCDR with 23 years' service, which means I would draw \$331.89 a month in retirement pay. However, if I reverted and remained on active duty for four more years as W-4, and could then retire after 27 years' service, my retirement pay would come to \$400.14 per month—if it were based on the pay of LCDR with that much service.

Therefore, my question is: If I remain on active duty for the extra four years, will I be retired as LCDR, or as W-4?—J. C. O., LCDR, USN.

• Technically, you'd be retired as a W-4. But, according to BuPers Inst.

1811.1A, you would be advanced to the rank of LCDR on the Retired List after your retirement, and you would be entitled to retired pay based on that rank (providing, of course, that the Secretary of the Navy determined that your service as LCDR was satisfactory). The retired pay based on the higher grade would be effective from the date of retirement. In other words, you would get the \$400.14.—Ed.

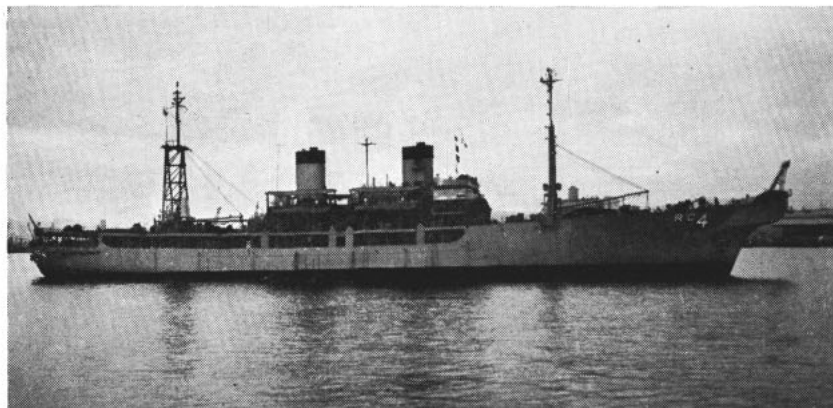
NEASP Time Counts

SIR: As I understand it, to be eligible for the NEASP (Naval Enlisted Advanced School Program) one must obligate himself for six years. In the case of a Reserve on active duty, he will be enlisted into the regular Navy with equivalent rate, for six years.

The first two years will be spent in some university, and the man will draw the pay and allowances of his rate.

Can you supply me with answers to the following: (1) Exactly how will this time spent in school count or be computed for retirement purposes? (2) Will a Reservist, regardless of rate or rating, be eligible for reenlistment bonus? (3) Approximately how many men per year will be selected for this program? (4) What would happen with a man failing this program?—E. A. L., USNR (TAR).

• Time spent in school (NEASP) will count as any active duty time for retirement purposes. Provided a Reservist has served on active duty for a period of one year before enlisting in the Regular Navy, he will be eligible for reenlistment bonus. This will apply to personnel in both open and closed ratings. However, only those personnel selected will be enlisted in the Regular Navy. Approximately 100 men a year will be selected for the NEASP. Personnel who fail are permitted to convert horizontally to the rating that was held upon entry, or convert to any rating for which they can qualify.—Ed.



THOR SPOT—Cable laying ship USS Thor (ARC 4) rests in San Francisco Naval Shipyard after having been in drydock receiving her regular overhaul.



OLD TIMER—USS Indianapolis (CA 35) sits for portrait in 1939. She was sunk by enemy sub in Pacific just two weeks before the end of WW II.

Sinking of Indianapolis

SIR: I've often heard that the cruiser USS Indianapolis (CA 35) was carrying an atomic bomb when she was sunk by a Japanese submarine. Is this true or not?—G. S., AM1, USN.

• That story is often told, but it's strictly scuttlebutt.

Indianapolis, in a high-speed run had delivered essential atomic bomb materials to Tinian but had completed that mission when she was sunk. After delivering her special cargo to Tinian, Indianapolis was dispatched to Guam to discharge certain passengers and then proceed to Leyte.

While steaming from Guam to Leyte on 30 July 1945, Indianapolis was torpedoed twice by the Japanese submarine I-58. She sank in 12 minutes. About 300 members of her crew were

later rescued and more than 875 were killed or reported missing.

The loss of Indianapolis was considered to be one of the most tragic of World War II. Launched in 1932, the heavy cruiser had served from Pearl Harbor through the last campaign of the war and went down a scant two weeks before the war's end.—Ed.

Performing Tug

SIR: R. L. Weinrich, QMC, of USS Penobscot (ATA 188) has a right to be proud of his ship's record as he presented it in your March issue. However, it must be remembered that movement orders come from a source other than the ship itself and the number of miles steamed and the work accomplished depends on these orders.

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, ALL HANDS Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four months in advance.

• USS Portland (CA 33)—The second biannual reunion will be held in Chicago, Ill., on 8, 9, and 10 August. Information is available from Henry Dieterich, 800 Massena Ave., Waukegan, Ill.

• USS Quincy (CA 71)—The seventh reunion will be held on 15, 16 and 17 August at the Hotel Essex, Boston, Mass. For further details, write to Ed Moore, 173 Carlton Terrace, Teaneck, N. J.

• 82nd Seabees—519th CBMU—The twelfth annual reunion will be held on 26-27 September. For further information, write to James Greenwood, 147 Bathurst Ave., North Arlington, N. J.

• USS Chester (CA 27)—All who served on board from 1 Jan 1942 until 1 Jan 1946, and who are interested in holding a reunion in New York City this fall may write to Leonard L. Oettinger, Jr., Box 192, Kinston, N.C.

• USS LCI 615—All former members who served on board from May 1944 until September 1955, and who are interested in holding a reunion, with time and place to be decided by mutual consent, may write to Dennis McCarty, 214 West Elm St., Hartford City, Ind.

The record of our ship, USS Accokeek (ATA 181) is not as impressive for 1957, but we will match it with pride against any other Atlantic or Pacific Fleet tug. Regardless of the outcome, I know that Accokeek did its job as did all other seagoing tugs.

Accokeek steamed approximately 17,000 miles in 1957 and thus far in 1958 we have steamed 18,723 miles which includes a trip across the Equator. The USS Umpqua (ATA 209), and possibly other ATAs, has an Equator crossing to her credit.

Each Navy ship has an assigned duty to perform and I am sure each has done and will continue to do that work with credit to itself and the Navy.—H. K. S., RM3, USN.

• Your last paragraph sums it all up very nicely.—Ed.

USS Washington

SIR: Would you please tell me the month, date and year that the battleship USS Washington (BB 56) was commissioned, and a little bit of her history?—A. M. J., TM1, USN.

• Washington was the second (and last) ship in the famous North Carolina class of 1937 to join the Fleet. She was commissioned at the Philadelphia Naval Yard on 15 May 1941, just a month after USS North Carolina (BB 55) became a member of the Atlantic Fleet. These were the first two battleships to be added to the U. S. Navy since 1 Dec 1923 when USS West Virginia (BB 48) was entered on the rolls, but eight others were soon to follow as the United States added to its battle Fleet during the war years.

Washington was a powerful addition to our Fleet. Displacing 35,000 tons, the 729-foot-long battleship carried nine 16-inch 45 cal. rifles and numerous smaller weapons. When the war broke out, Washington was ordered to report to Commander Naval Forces, Europe, at Scapa Flow, Scotland. In mid-1942 she returned to New York for overhaul and a short time later steamed into the Pacific.

In November 1942 American naval forces were concentrating on landing fresh troops on Guadalcanal and attempting to keep the enemy from bringing in reinforcements and supplies. With the later thought in mind, Task Force 64 steamed into the area east of Savo Islands to intercept an enemy transport force which had been reported approaching the Solomons.

Washington was flagship, backed up by USS South Dakota (BB 57) and four destroyers. The force intercepted at night a Japanese bombardment group composed of a battleship, two heavy cruisers, two light cruisers and nine destroyers. Two other destroyers joined the Japanese force later in the action.

The Japanese force split into three groups, presenting a confusion of tar-

gets to the U. S. task force. A short time after the action began, the four American DDs were out of action. Two had been sunk and the other two so seriously damaged that they had to withdraw, leaving the battleships without escorts.

Searchlights caught South Dakota as she maneuvered to avoid the burning destroyers and she was exposed to the combined Japanese bombardment group. She returned the fire with everything she had, and Washington chimed in with her 16-inch guns, raining salvo after salvo onto the battleship Kirishima and dividing her five-inch fire between the enemy BB and the ships illuminating South Dakota. Within seven minutes Kirishima was out of the fight, her steering gear wrecked and her topsides aflame. The cruiser Atago and Takao had also been damaged.

The damaged South Dakota was forced to retire to the south while Washington steamed north to draw the bombardment group away. The enemy force followed BB 56 but her big guns soon discouraged the ships and skillful maneuvering enabled her to avoid a torpedo attack.

The next day the burning Kirishima was scuttled by her crew along with a seriously damaged Japanese destroyer.

Washington fought on during the rest of the war years, passing from one operation, landing or battle, to another and when the peace came in 1945 she had earned 13 battle stars. In mid-1947, six years after she was commissioned, the battleship was placed out of commission in reserve.

With the recent addition of our last battleship, *uss Wisconsin* (BB 64), to the Reserve Fleet the total number of BBs standing by in mothballs rose to 15. Included with Washington and Wisconsin are Tennessee (BB 43), California (BB 44), Colorado (BB 45), Mary-

Here Are Some Pointers on Using a Bosun's Chorus

SIR: Lovette's *Naval Customs, Traditions, and Usage* indicates that the setting of the first watch upon commissioning of a ship is particularly effective when "boatswain's mates take up the piping fore and aft." If memory serves correctly I believe I have seen this interpreted as having the boatswain (if assigned) or the chief boatswain's mate plus a "Bosun's Chorus" of rated BMs pipe the first watch in unison.

Have you available any information, pro or con, concerning this matter.—C. W. J., LT, USN.

• The use of a "Bosun's Chorus" as suggested in your letter is an accepted practice in some circles; one, it might be added, that lends additional pomp to the already impressive commissioning ceremony. The Commissioning Bill of *uss Saratoga* (CVA 60) quoted in part here, indicates the use of the chorus:

"The Executive Officer answers 'Aye Aye, Sir,' and orders the Navigator: 'Navigator, take the first watch as Officer of the Deck' and hands the OOD long glass to the Navigator, who salutes and replies, 'Aye Aye, Sir,' and proceeds to the First Section. The Executive Officer orders the Ship's Boatswain: 'Pass the word. Set the watch on deck, first section.' The

Ship's Boatswain and Mates (three or four) pipe and then pass the word: 'Set the watch on deck, first section.'"

Your interpretation of piping "fore and aft" is correct, but it must be remembered that this term is a carry-over from the days when ships were not equipped with loudspeaker systems. Now that they are so equipped, the piping is usually done from the quarterdeck or from the scene of the ceremony where it adds a nautical note to the activities.

The fact that this piping is usually done at the scene of the ceremony can be seen in this example of a DDR-type ship commissioning bill (an enclosure to a Fifth Naval District instruction). The pertinent area reads:

CDR to LT: "Set the watch."

LT: — "Aye Aye, Sir. Chief Boatswain's Mate, set the watch, First Section."

BOSN: — Pipes and passes word, "Set the watch on deck, First Section."

The watch squad falls out and proceeds on the double to man stations.

Regardless of whether a single pipe is used or a chorus, the commissioning ceremony is one of the most important military rites performed aboard a ship. It literally sets the tone for the future life of the ship.—Ed.

land (BB 46), West Virginia (BB 48), North Carolina (BB 55), South Dakota (BB 57), Indiana (BB 58), Massachusetts (BB 59), Alabama (BB 60), Iowa (BB 61), New Jersey (BB 62) and Missouri (BB 63). Kentucky is also listed in the Naval Vessel Register, but construction was suspended before com-

pletion and she was never commissioned.

Since the last battleship has been placed out of commission we hope to be able to bring you a story soon, relating a few of the exploits recorded by these magnificent ships-of-the-line. Be it progress or not, Navymen everywhere miss the battleship.—Ed.

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THE BULLETIN BOARD

There Are More Benefits Than You Realize in New Pay Bill

BY NOW you should have had the opportunity to cash in on the benefits of Public Law 85-422. This is the law which amends the Career Compensation Act of 1949 (as amended), and is designed to reduce the manpower turnover and to give the armed forces greater selectivity in retention of highly qualified personnel. To the average Navyman, this law is commonly referred to as "the new pay bill."

True, it is a new pay bill, but to the career Navyman, Public Law 85-422 is much more than that. It provides for:

- **Higher Basic Pay Scales**—Since everybody is talking about the "new pay bill," we'll cover that portion of the law first. As of 1 Jun 1958, all enlisted and officer personnel having more than two years' service were granted raises in their basic pay. Added increases are also provided every two years until a maximum time-in-grade is reached. As an example:

A PO3 with four years' service drew \$159.90 basic pay per month under the old pay bill. He now draws \$170. After six years he'll receive \$180 per month, and with over eight years' service his basic pay will jump to \$190 monthly. It stops there, however, when a PO3 has reached his maximum time-in-grade. The biennial basic pay increases for a PO2 stop after 10 years' service; after 18 years for a PO1, and after 20 for a CPO. Therefore enlisted men, and officers as well, must earn a promotion in order to get a pay raise after serving the maximum time-in-grade.

A CPO with 12 years' service now receives \$300 basic pay per month compared to \$273 under the old bill. The new bill provides \$10 and \$15 increases every two years thereafter until \$350 is reached at 20 years, the maximum time-in-grade for a CPO.

While the 12-year Chief gets a \$27 monthly boost, a LT with over six years' service receives a \$34.40 increase, and the basic pay for a CDR with over 16 years' jumped from \$577.20 to \$680 per month.

Don't forget that you must allow

for deductions for income and social security taxes before you start spending your money. To give you an idea of how these deductions affect your raise, we'll assume that the same PO3, Chief, LT and CDR cited above, has three dependents each—a wife and two minor children.

The PO3, with three dependents will not be required to pay any income taxes. Therefore, his raise is about \$11 a month—almost the same as shown on the pay charts. His only added monthly deduction will be about \$.20 for social security payments. The Chief would come out about \$24 ahead after deductions for social security and income taxes. The LT's \$35 raise will amount to \$32 after taxes, and the Commander's \$680 basic pay will add up to about \$583, which would give him an additional \$75 a month take-home pay. (See accompanying Pay Chart.)

The new law also provides a special basic pay scale for commissioned officers in pay grade O-1 through O-3 who have previously had over four years of active enlisted service.

Under this new scale, the basic pay for an O-1 with over four years' active enlisted service begins at \$314 and goes up as high as \$400 per month, while the basic pay of an ensign without any enlisted service begins at \$222.30, and \$314 is the most basic pay that he can draw.



"And when did you first feel run down?"

Allowances for housing, as well as hazardous duty pay were unchanged by the new pay bill. They remain the same as shown on page 8 of the special Rights and Benefits issue of ALL HANDS published in May 1957.

- **New Pay Grades Established**—New pay grades E-9 (Master Chief Petty Officer) and E-8 (Senior Chief Petty Officer) for the enlisted structure, and pay grades O-10 (Admiral—four star rank) and O-9 (Vice Admiral—three star rank) in the officers' pay structure have been established. Formerly Admirals and Vice Admirals received the basic pay of a Rear Admiral (O-8) but were allowed additional increment pay each month. Under the new pay bill, ADMs and VADMs receive basic pay figured on a somewhat higher scale than a RADM but receive the same basic allowance for subsistence and quarters as a RADM does.

The two new enlisted pay grades enable an E-9 to earn as much as \$440 basic pay per month. Formerly the most basic pay a senior enlisted man (E-7) could make was \$335.40 a month after 26 years' service. That's \$104.60 per month less than the new all-time high.

During the next four years the Navy plans to select 2800 E-9s and 8600 E-8s. The new law limits E-9 advancements to one per cent and E-8 to two per cent of the total enlisted strength of each service. These promotions will be phased in over a four-year period.

Advancements to the two new enlisted pay grades will be based on competitive examinations and by selection boards. The first exams are slated for August '58 with Master and Senior Chief Petty Officer promotions becoming effective in November '58. Exams will be held annually in February thereafter.

To be eligible for Senior Chief Petty Officer (E-8) you must have been a CPO (E-7) for four years and have a total of 11 years' service. The requirements for promotion to Master Chief, the Navy's senior enlisted pay grade, call for 13 years' of service.

Sea and hazardous duty pay, BAQ and BAS for E-8s and E-9s will be the same as that prescribed under the old bill for E-7s.

• **Proficiency Pay**—The new law provides two methods for awarding proficiency pay to certain enlisted personnel. It contains authority to promote career personnel with critically needed skills and leadership qualifications to pay grades above their military rank. Thus, a third class petty officer drawing proficiency pay could receive the pay of an E-5 or E-6. The other method provides authority to give proficiency pay of \$50, \$100 or \$150 a month to enlisted personnel, depending on the degree of their skill and the requirements of the service.

Under the second alternative, an E-9 drawing a basic pay of \$440 per month could receive, in addition to other pay and allowances, as much as \$150 more per month in proficiency pay. If such were the case, a Master Chief Petty Officer's annual income would be as much as \$10,000 per year.

The Navy's plans for implementing proficiency pay have not been announced as yet, but will be covered in a future issue of ALL HANDS.

• **Responsibility Pay**—Special "responsibility pay" for officers was authorized under the legislation amending the Career Compensation Act. This extra pay will go to officers serving in "assignments of extraordinary responsibility and critical necessity." Pay authorized is \$150 for

Fleet Reserve Pay

Here's how you'll fare as far as retired/retainer pay goes under the new pay bill:

YEARS OF ACTIVE SERVICE	RETAINER AND RETIRED PAY FOR		
	E-7	E-8	E-9
*19½-20	175.00	185.00	215.00
20½-21	183.75	194.25	225.75
21½-22	192.50	209.00	242.00
22½-23	201.25	218.50	253.00
23½-24	210.00	228.00	264.00
24½-25	218.75	237.50	275.00
25½-26	227.50	247.00	286.00
26½-27	236.25	256.50	297.00
27½-28	245.00	266.00	308.00
28½-29	253.75	275.50	319.00
29½-30	262.50	285.00	330.00

* The retainer pay for a Navyman transferring to the Fleet Reserve upon completion of 19 years, six months and 10 days of active service, is the same as if he completed a full 20 years' active service. This is because a six-month period is counted as a full year when computing basic pay as well as the number of years' of active service for retired/retainer pay purposes. (See Article C-13405, BuPers Manual.)

CAPT's (0-6); \$100 per month for CDRs (0-5); and \$50 for LCDRs (0-4) and LTs (0-3). Awarding of this additional pay is limited to 10 per cent of the officers in pay grade 0-6, 0-5, 0-4, and five per cent of those in pay grade 0-3.

• **Retired Pay**—With minor exceptions, the act provides that any person entitled to retired pay, retirement pay, retainer pay or equivalent

pay on 31 May 1958 shall be entitled to an increase of six per cent of the pay to which they were entitled as of that date. The increase will be given automatically to those receiving monthly payment from the Navy Finance Center and no action is required by those on retired rolls.

Those retiring or transferring to the Fleet Reserve on or after 1 Jun 1958 will receive retired/retainer pay based on the rates under the new pay bill or on the old pay bill plus a six per cent increase, whichever is the greater. (See accompanying box listing rates of retired retainer pay computed at the rate of two and one-half per cent of the new basic pay multiplied by the number of years of active service.)

• **"Saved Pay Clause"**—Another feature of the revised Career Compensation Act (Public Law 85-422) is the "Saved Pay Clause" which provides that no person, active or retired, will suffer by its enactment any reduction in basic or retired pay he was entitled to on 31 May 1958.

Announcement of Latest Appointments to WO

Three first class and 9 chief petty officers have been issued temporary appointments to Warrant Officer, W-1.

These appointments are from an eligibility list established by a selection board convened in February 1957.

Table of Active Duty Service Pay Under New Law

RANK OR PAY GRADE	MONTHLY BASIC PAY (BASED ON CUMULATIVE YEARS OF SERVICE, ACTIVE AND INACTIVE)															
	Under 2 years	Over 2 years	Over 3 years	Over 4 years	Over 5 years	Over 6 years	Over 8 years	Over 10 years	Over 12 years	Over 14 years	Over 16 years	Over 18 years	Over 20 years	Over 22 years	Over 26 years	Over 30 years
O-10 Admiral	\$1,200.00	\$1,250.00	\$1,250.00	\$1,250.00	\$1,250.00	\$1,300.00	\$1,300.00	\$1,400.00	\$1,400.00	\$1,500.00	\$1,500.00	\$1,600.00	\$1,600.00	\$1,700.00	\$1,700.00	\$1,700.00
O-9 Vice Admiral	1,063.30	1,100.00	1,122.00	1,122.00	1,122.00	1,150.00	1,150.00	1,200.00	1,200.00	1,300.00	1,300.00	1,400.00	1,400.00	1,500.00	1,500.00	1,500.00
O-8 Rear Adm. (Up. Hlf.)	963.30	1,000.00	1,022.00	1,022.00	1,022.00	1,100.00	1,100.00	1,150.00	1,150.00	1,200.00	1,200.00	1,300.00	1,300.00	1,350.00	1,350.00	1,350.00
O-7 Rear Adm. (Low. Hlf.)	800.28	860.00	860.00	860.00	860.00	900.00	900.00	950.00	950.00	1,000.00	1,100.00	1,175.00	1,175.00	1,175.00	1,175.00	1,175.00
O-6 Captain	592.80	628.00	670.00	670.00	670.00	670.00	670.00	670.00	670.00	690.00	800.00	840.00	860.00	910.00	985.00	985.00
O-5 Commander	474.24	503.00	540.00	540.00	540.00	540.00	540.00	560.00	590.00	630.00	680.00	720.00	745.00	775.00	775.00	775.00
O-4 Lieutenant Commander	406.14	424.00	455.00	455.00	455.00	465.00	485.00	520.00	550.00	570.00	610.00	630.00	630.00	630.00	630.00	630.00
O-3 Lieutenant	326.04	346.00	372.00	372.00	372.00	415.00	440.00	460.00	480.00	510.00	525.00	525.00	525.00	525.00	525.00	525.00
O-2 Lieut. (jr. gr.)	259.36	291.00	360.00	370.00	380.00	380.00	380.00	380.00	380.00	380.00	380.00	380.00	380.00	380.00	380.00	380.00
O-1 Ensign	222.30	251.00	314.00	314.00	314.00	314.00	314.00	314.00	314.00	314.00	314.00	314.00	314.00	314.00	314.00	314.00
O-3 E*				\$415.00	\$440.00	\$460.00	\$480.00	\$510.00	\$535.00	\$535.00	\$535.00	\$535.00	\$535.00	\$535.00	\$535.00	\$535.00
O-2 E*				370.00	380.00	395.00	415.00	435.00	450.00	450.00	450.00	450.00	450.00	450.00	450.00	450.00
O-1 E*				314.00	335.00	350.00	365.00	380.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00
W-4 (Chief W. Off.)	\$332.90	\$376.00	\$376.00	\$383.00	\$399.00	\$416.00	\$435.00	\$465.00	\$486.00	\$504.00	\$516.00	\$528.00	\$543.00	\$575.00	\$595.00	\$595.00
W-3 (Chief W. Off.)	302.64	343.00	343.00	348.00	353.00	380.00	398.00	412.00	427.00	441.00	458.00	470.00	487.00	506.00	506.00	506.00
W-2 (Chief W. Off.)	264.82	298.00	298.00	307.00	328.00	342.00	355.00	369.00	381.00	393.00	406.00	417.00	440.00	440.00	440.00	440.00
W-1 (Warrant Officer)	219.42	266.00	266.00	285.00	299.00	313.00	334.00	345.00	354.00	364.00	375.00	390.00	390.00	390.00	390.00	390.00
E-9 (Master Chief Petty Officer)							\$380.00	\$390.00	\$400.00	\$410.00	\$420.00	\$430.00	\$440.00	\$440.00	\$440.00	\$440.00
E-8 (Senior Chief Petty Officer)							320.00	330.00	340.00	350.00	360.00	370.00	380.00	380.00	380.00	380.00
E-7 (Chief Petty Officer)	\$206.39	\$236.00	\$236.00	\$250.00	\$260.00		270.00	285.00	300.00	310.00	325.00	340.00	350.00	350.00	350.00	350.00
E-6 (Petty Off. 1st Cl.)	175.81	200.00	200.00	225.00	235.00		245.00	255.00	265.00	275.00	280.00	290.00	290.00	290.00	290.00	290.00
E-5 (Petty Off. 2nd Cl.)	145.24	180.00	180.00	205.00	210.00		220.00	240.00	240.00	240.00	240.00	240.00	240.00	240.00	240.00	240.00
E-4 (Petty Off. 3rd Cl.)	122.30	150.00	160.00	170.00	180.00		190.00	190.00	190.00	190.00	190.00	190.00	190.00	190.00	190.00	190.00
E-3 (SM, FN, AN, CN, TN, HN, DN)	99.37	124.00	124.00	141.00	141.00		141.00	141.00	141.00	141.00	141.00	141.00	141.00	141.00	141.00	141.00
E-2 (SA, FA, AA, CP, YA, HA, DA)	85.80	108.00	108.00	108.00	108.00		108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00
E-1 (Over 4 months) (SR) (Etc.)	83.20	105.00	105.00	105.00	105.00		105.00	105.00	105.00	105.00	105.00	105.00	105.00	105.00	105.00	105.00
E-1 (Under 4 months) (SR) (Etc.)	78.00															

* Commissioned officers who have been credited with over 4 years' active service as an enlisted member.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current *Alnavs* and *NavActs* as well as current *BuPers* Instructions, *BuPers* Notices, and *SecNav* Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since *BuPers* Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult *Alnavs*, *NavActs*, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; *NavActs* apply to all Navy commands; *BuPers* Instructions and Notices apply to all ships and stations.

Alnavs

No. 12—Concerned with amendments to the Career Compensation Act of 1949, which increases the rates of basic pay, establishes new pay grades O-9, O-10, E-8 and E-9, and certain other matters.

No. 13—Urged safe driving over the holidays.

No. 14—Ordered national ensign to be flown at half mast in honor of unknown dead of World War II and Korean conflict.

Instructions

No. 1210.4B—Revises the billet and officer designator code system.

No. 1326.1B—Establishes a uniform procedure for the administration of the allocation, issuance, utilization, and reporting of temporary flight orders for Navy enlisted personnel.

No. 1412.11—Sets forth the current policy concerning assignment to duty with Joint, Combined, Allied and Office of the Secretary of Defense staffs.

No. 1416.7—Describes the standards and methods of establishing physical qualifications for promotion of USN and USNR officers in the grades of lieutenant (junior grade) and above, and warrant officers on active duty.

No. 1500.15C—Outlines the procedures followed in the selection of candidates for diving instruction and lists activities authorized to conduct diving training for officers and enlisted personnel.

No. 1510.69C—Outlines eligibility requirements and procedures whereby enlisted personnel may apply for selection to either the Navy Enlisted

HTG Launches Its Own Course in Leadership

Even before last month's centerspread on leadership had gone to press and the stepped-up leadership program had been officially announced, the Navy's Helicopter Training Group at Ellyson Field, Pensacola, Fla., had launched its own training course in leadership for chief and first class petty officers.

This refresher course was established by CAPT J. J. Hilton Jr., CO of HTG, to enable PO1s and CPOs to assume more effectively their role in the chain of command.

The four-week course—limited to 12 students per class—covers subjects ranging from the principles of leadership to human relations, management principles and even thinking habits.

Advanced School Program or the Navy Enlisted Scientific Education Program.

No. 1520.4D—Invites applications from USN and USNR officers of unrestricted line or LDO categories (other than aviation) for assignment to deep sea diving instruction.

No. 1520.48B—Describes the college training program for eligible augmented and integrated USN commissioned line officers, but not restricted line, with permanent grade of ensign and above.

No. 1560.15—Announces an increase in the initial enrollment fee for USAFI correspondence courses

and other changes in USAFI enrollment policies and procedures.

No. 1813.3—Provides for the deferment of transfer of individuals to the Fleet Reserve in certain instances.

No. 4650.60—Informs naval personnel ordered to duty in Japan of policies concerning concurrent travel, and describes the housing situation.

Notices

No. 1430 (21 April)—Cited the advancements resulting from the February service-wide examinations and the opportunities which it is estimated will result from the August and November service-wide examinations.

No. 1306 (30 April)—Reemphasized the requirement of Art. C-5403A of the *BuPers Manual*, and discussed a procedure by which unnecessary travel can be eliminated.

No. 1306 (1 May)—Established the sea-tour commencement dates for enlisted personnel to be eligible for Seavey Segment Three, effective for order writing purposes on 1 October.

No. 1611 (5 May)—Announced the names of those officers selected for retention as permanent USN officers.

No. 1700 (7 May)—Announced the Fifth All-Navy Talent Contest.

No. 1020 (8 May)—Authorized the use of the blue raincoat by commissioned and chief petty officers for an indefinite period.

No. 1520 (28 May)—Notified the naval service of a program of seminar training in professional subjects for chaplains on active duty.

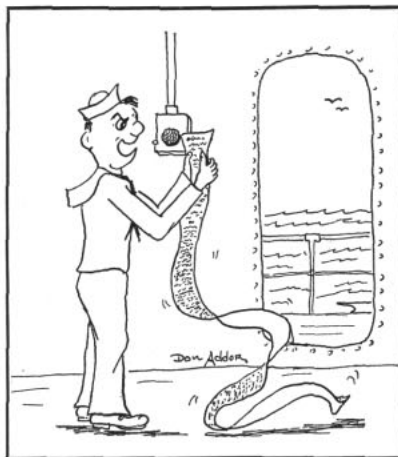
No. 1900 (29 May)—Emphasized the necessity for correct distribution of DD Form 214.

Wave Enlistments Shortened From Four to Three Years

The minimum term of service for enlisted women has been reduced from four to three years.

The reduction stems from the belief that a four-year term of service is too long a period of time for a young woman to obligate herself when she is undecided as to her future career.

An enlistment contract of three years for women will enable the Navy to fill its enlisted requirements for women and at the same time increase selectivity of applicants.



"Now hear this"

List of New Motion Pictures Scheduled for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature movies available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number.

Those in color are designated by (C) and those in wide-screen processes by (WS). Distribution began in May.

Hunchback of Notre Dame (1064) (C) (WS): Drama; Gina Lollobrigida, Anthony Quinn.

I Accuse (1065) (WS): Drama; Jose Ferrer, Anton Walbrook.

Pal Joey (1066) (C): Musical; Frank Sinatra, Rita Hayworth.

Decision at Sundown (1067) (C): Western; Randolph Scott, John Carroll.

Cowboy (1068) (C): Drama; Glenn Ford, Jack Lemmon.

Escapade in Japan (1069) (C) (WS): Drama; Teresa Wright, Cameron Mitchell.

Escape from Red Rock (1070) (WS): Western; Brian Donlevy, Eilene Danssen.

Summer Love (1071): Drama; John Saxon, Molly Bee.

Fort Dobbs (1072): Western; Clint Walker, Virginia Mayo.

Wild is the Wind (1073): Drama; Anna Magnani, Anthony Quinn.

High Cost of Loving (1074) (WS): Drama; Jose Ferrer, Joanne Gilbert.

The Deerslayer (1075) (C) (WS): Drama; Lex Barker, Rita Moreno.

Missouri Traveler (1076) (C): Drama; Brandon DeWilde, Lee Marvin.

Lafayette Escadrille (1077): Melodrama; Tab Hunter, Etchika Choureau.

The Girl Most Likely (1078) (C): Comedy-Drama; Jane Powell, Keith Andes.

The Lady Takes a Flyer (1079) (WS): Drama; Lana Turner, Jeff Chandler.

The Female Animal (1080) (WS): Comedy-Drama; Hedy Lamarr, Jane Powell.

Blood Arrow (1081) (WS): Western; Scott Brady, Paul Richards.

The Crooked Circle (1082)

(WS): Drama; John Smith, Fay Spain.

Naked in the Sun (1083) (C): Melodrama; James Craig, Lita Milan.

The Big Beat (1084) (C): Mystery; William Reynolds, Andra Martin.

Going Steady (1085): Comedy-Drama; Molly Bee, Alan Reed, Jr.

Rawhide Trail (1086): Western; Rex Reason, Nancy Gates.

Across the Bridge (1087): Melodrama; Rod Steiger, David Knight.

The Spanish Affair (1088) (C): Melodrama; Richard Kiley, Carmen Sevilla.

Change in Regulations on Transfer to Fleet Reserve

If you're about to transfer to the Fleet Reserve, you'd better do some advance planning. Hereafter, you CANNOT transfer to the Fleet Reserve unless you have served aboard your present duty station for a full year.

If you apply for transfer to the Fleet Reserve after receiving permanent transfer orders you'll be required to carry out your orders, as your transfer to the Fleet Reserve will be deferred one year beyond your requested transfer date.

These changes — announced in BuPers Inst. 1813.3 — are designed to increase stability of personnel within the Navy and to reduce unnecessary costs of frequent transfers.

New Deadline Set for Connecticut Korean Bonus

During a special session of the Connecticut State Legislature, a bill was passed that extends the time for filing Korean Bonus Applications until 30 Sep 1958.

The bonus is paid to all qualified Connecticut veterans who served on active duty between 27 Jun 1950 and 27 Oct 1953 for a period of 90 days or more, and whose service was honorable or under honorable conditions.

Each veteran is compensated for his service in the amount of 10 dollars for each month or major part thereof active service in the armed forces. The maximum amount payable is \$300.

Applications and further information may be obtained from the Office of the Treasurer, Veterans Bonus Division, 33 Webster St., Hartford, Conn.

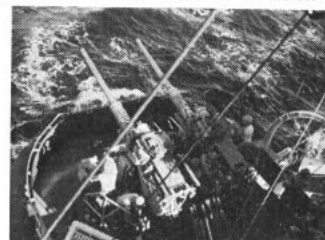
Since USS Macon (CA 132) is featured in this month's *All Hands*, we'll toss a few questions about that heavy cruiser in your direction.

1. CA132 is the second ship in the U.S. Navy to be named after the city of Macon, Georgia. The first was (a) an airship (b) an armored cruiser (c) battleship.



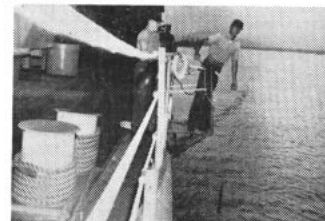
2. Macon is one of 14 heavy cruisers of the Baltimore class. Her displacement is 17,000 tons and her length is (a) 625 feet (b) 650 feet (c) 675 feet.

3. *Regulus* guided missiles provide Macon's long-range offensive punch while these rapid-firing three-inch 50 caliber twin mounts are her main source of air defense. In addition to



Regulus and the twin three-inch mounts, Macon's armament includes (a) eight-inch guns and *Terrier* missiles (b) five- and eight-inch guns, and 20mm and 40mm AA guns (c) five- and eight-inch guns only.

4. A 3-inch 50 caliber cartridge weighs 25 pounds. It is capable of firing a 13-pound projectile a distance of at least (a) five miles (b) 10 miles (c) 15 miles.



5. Here a Macon leadsman is about to take a sounding from his station which is called a (a) stage (b) chains (c) forward gangway.

6. Macon's maximum draft is (a) 22 feet (b) 26 feet (c) 30 feet.

If you answered all of this month's questions correctly you'll qualify as an honorary crew member of Macon. Answers can be found on page 61.

TABLE I

NUMBER WHO PASSED AND MAY BE ADVANCED TO EACH RATE AS THE RESULT OF THE FEBRUARY 1958 EXAMINATION

RATING	No. who passed	No. who may advance	No. who passed	No. who may advance	No. who passed	No. who may advance	No. who passed	No. who may advance
	E-4		E-5		E-6		E-7	
AB	—	—	460	14	231	7	107	15
ABG	389	10	—	—	—	—	—	—
ABU	937	30	—	—	—	—	—	—
AC	—	—	310	310	98	60	73	73
ACR	16	16	—	—	—	—	—	—
ACT	115	115	—	—	—	—	—	—
ACW	97	97	—	—	—	—	—	—
AD	—	—	1457	300	1283	38	1367	44
ADJ	802	200	—	—	—	—	—	—
ADR	1280	600	—	—	—	—	—	—
AE	—	—	538	538	178	178	125	125
AEI	139	139	—	—	—	—	—	—
AEM	524	524	—	—	—	—	—	—
AG	158	158	132	132	87	87	36	36
AK	901	27	430	120	133	5	85	26
AM	—	—	920	920	347	200	338	200
AMH	475	475	—	—	—	—	—	—
AMS	629	629	—	—	—	—	—	—
AO	765	80	443	25	397	11	251	8
AQ	—	—	25	25	40	20	60	3
AQB	27	27	—	—	—	—	—	—
AQF	64	64	—	—	—	—	—	—
AT	—	—	978	978	334	334	187	187
ATN	321	321	—	—	—	—	—	—
ATR	267	267	—	—	—	—	—	—
ATS	24	24	—	—	—	—	—	—
BM	2071	62	1446	43	1432	42	972	51
BR	—	—	—	—	—	—	9	9
BT	1150	820	1044	1044	320	270	248	109
BU	238	180	160	160	62	62	34	34
CD	337	40	158	20	142	4	37	37
CE	94	94	67	67	29	29	14	14
CM	234	55	87	15	64	4	46	11
CS	1194	100	1104	33	1267	38	669	130
CT	346	346	506	506	143	143	149	30
DC	395	80	383	130	246	7	254	28
DK	302	200	152	152	120	5	93	4
DM	125	100	39	39	17	17	10	10
DT	446	70	278	100	161	6	111	4
EM	1070	1070	1090	1090	417	417	273	68
EN	1450	1200	920	400	701	21	645	300
ET	559	559	677	677	381	250	424	140
FP	563	180	382	250	163	20	105	17
FT	—	—	623	550	287	30	253	8
FTA	481	106	—	—	—	—	—	—
FTE	10	10	—	—	—	—	—	—
FTG	4	4	—	—	—	—	—	—
FTL	61	61	—	—	—	—	—	—
FTM	434	106	—	—	—	—	—	—
FTU	13	13	—	—	—	—	—	—
GF	71	71	17	17	21	2	39	5
GM	1410	200	906	50	852	25	500	28
GS	27	27	34	34	46	30	20	20
HM	2245	1000	1335	350	1040	31	939	29
IC	346	346	439	439	123	123	37	37
IM	36	5	47	10	19	2	17	2
JO	78	78	29	29	16	16	8	8
LI	128	10	50	2	44	2	18	1
MA	118	100	65	50	79	35	42	8
ME	431	200	436	100	307	20	261	53

It's That Time Again

THE RESULTS of the February exams are past history; most of the crows have been sewed on and many of your shipmates have choked on cigar smoke to help celebrate the occasion.

Generally speaking, the over-all number of advancements was high. It's true that some of the rating groups were more "open" than others and provided better opportunities to advance. But in the long run the only ones who really suffered (if that's the correct word) were those looking for the hard hat. And here, as in other rates, it must be realized that the number chosen was based on vacancies to be filled.

In Table I you'll find the actual number of Navymen, by rating and pay grade, who passed the examinations held in February and the number who were included in the quota for advancement to each rate on a service-wide basis.

You'll note that there were fewer advanced to E-7 than there were in other years. The answer is obvious. There just weren't as many vacancies to be filled. You can chalk up the whys and wherefores to three reasons: Not as many CPOs were transferred to the Fleet Reserve as in past years; not as many left active duty; and reductions in size of the Navy during the last two fiscal years. This latter reason resulted in slightly reduced requirements for men at all pay grade levels.

What about the future? What are your chances in the August exam?

In estimating the advancement opportunities for those taking the August examinations, tabulations are based upon past statistics in computing the number of men likely to pass, and upon the best data now available in calculating the number of vacancies to be filled in August.

It should be noted that although emergency service ratings and selective emergency service ratings are not listed, they have the same advancement opportunities as related general service ratings.

It stands to reason that the best chances for advancement lie in the rating groups in which the greatest Navywide shortages exist. Of those passing examinations in the following ratings and rates from 76 to 100 per cent may expect to be advanced:

What Are the Chances?

Pay Grade E-4: AC, AD, AE, AG, AM, AQ, AT, BT, CT, EM, EN, ET, GF, GS, IC, JO, MU, OM, QM, RD, RM, SK, SM, SO, TD, TE(RM), TM and UT.

Pay Grade E-5: AC, AE, AG, AM, AQ, AT, BT, CE, CT, DM, EM, ET, GF, GS, IC, JO, MM, MR, MU, OM, QM, RD, RM, SK, SM, SO, SV, TE(RM), TM and UT.

Pay Grade E-6: AC, AE, AM, AT, BR, BT, CE, CT, DM, EM, ET, IC, JO, MM, MR, PM, RD, RM, SM, SO, SV, TE(RM) and UT.

Opportunities for the following rates are good. And you can expect that from 51-75 per cent of those passing the exams will be advanced.

Pay Grade E-4: DC, DK, DM, MA, MM, MR, PM and YN.

Pay Grade E-5: BU, DK, EN, FT, MA, PH, PM, PN, SW, TD, TE(YN) and YN.

Pay Grade E-6: AG, GS, MU and OM.

You can put your chances down as fair (extra study will help) if you're going up for one of the following rates. Of these, it is expected that between 11-50 per cent of those passing will be advanced.

Pay Grade E-4: AK, AO, BM, BU, CD, CE, CM, DT, FP, FT, GM, HM, IM, LI, ME, ML, PH, PN, PR, SV and SW.

Pay Grade E-5: AB, AD, AK, AO, CD, CM, DC, DT, FP, GM, HM, IM, ME, ML, MN and PR.

Pay Grade E-6: AK, AQ, BU, DK, FP, FT, GF, MA, PH, PR, SK, SW and TD.

There is an excess of personnel in certain rates. While none of them is closed, only 3-10 per cent of those passing the exams for the following rates will be advanced:

Pay Grade E-4: AB, CS, MN, SD and SH.

Pay Grade E-5: BM, CS, LI, SD and SH.

Pay Grade E-6: AB, AD, AO, BM, CD, CM, CS, DC, DT, GM, HM, IM, LI, ME, ML, MN, PN, QM, SD, SH, TE(YN), TM and YN.

In reading this over you will note that no predictions are given for the newly-established ratings of NW and PT. This is due to the lack of adequate statistics.

This rundown gives you a fairly good idea of what the future holds. You can, for example, take a long hard look at your own crystal ball

TABLE I (continued)
NUMBER WHO PASSED AND MAY BE ADVANCED TO EACH RATE AS THE RESULT OF THE FEBRUARY 1958 EXAMINATION

RATING	No. who passed	No. who may advance	No. who passed	No. who may advance	No. who passed	No. who may advance	No. who passed	No. who may advance
	E-4		E-5		E-6		E-7	
ML	44	6	26	4	17	2	10	1
MM	1328	1328	1125	1125	501	501	368	300
MN	106	4	99	20	53	2	31	6
MR	347	230	233	233	94	94	45	45
MU	121	121	97	97	62	40	30	30
NW	47	47	26	26	56	56	46	46
OM	18	18	19	19	7	3	11	1
PH	—	—	188	150	96	4	95	3
PHA	126	25	—	—	—	—	—	—
PHG	371	125	—	—	—	—	—	—
PM	28	14	19	19	4	4	3	1
PN	1495	400	417	300	251	13	124	5
PR	212	80	120	100	52	5	55	20
QM	274	274	159	159	89	5	225	8
RD	675	675	565	565	247	247	109	109
RM	978	978	816	816	246	246	254	254
SD	1481	44	981	29	800	24	462	100
SH	1188	100	577	15	226	7	217	130
SK	1054	850	705	600	434	15	290	9
SM	259	259	212	212	88	88	156	156
SO	322	290	363	363	138	138	100	100
SV	69	40	18	18	6	6	2	2
SW	57	15	61	35	32	2	16	13
TD	—	—	141	110	84	18	51	17
TDI	67	67	—	—	—	—	—	—
TDR	42	42	—	—	—	—	—	—
TE(RM)	35	35	105	105	79	79	68	68
TE(YN)	—	—	55	44	27	1	25	1
TM	178	178	147	147	225	7	183	6
UT	65	65	46	46	24	24	15	15
YN	1669	1500	993	700	600	30	482	21

and tell whether or not your own rating group is getting crowded.

If you find yourself getting elbowed aside, take time out to read BuPers Inst. 1440.18A and 1440.5B. You'll see that they establish a broad program to help balance the enlisted rating structure by allowing you to move out of a crowded rating group into one with better opportunities.

And you can expect that if you are competent and take advantage of this change in rating program, it will improve your advancement opportunities in the next few years.

New Course Offered in Communication Engineering

About 30 unrestricted line officers (1100 and 1300) will enter the new Communication Engineering course at the Postgraduate School in Monterey this August.

This postgraduate course is de-

signed to enable officers who are highly qualified in operations to comprehend the theoretical aspects of the evergrowing information exchange problems of the Navy and to assist in their solution. The course will provide students with a strong background in communication theory, information exchange and electronics.

The two-year course leads to a Bachelor of Science degree in Communication Engineering, and helps meet the increasing requirement for electronics knowledge for new weapons and information systems in the Fleet. Successful completion will add to general line qualifications of career officers interested in weapons systems, information exchange and Navy planning.

Application for the class entering in 1959 may be submitted in accordance with the forthcoming BuPers Postgraduate Notice.

Hankering for Cool Weather? Adak, Alaska, Is Your Dish

RESIGNATION on your part and commiseration (not to mention a secret sense of superiority) from your friends is the typical reaction when you get orders for Adak, Alaska. Let's face it: Adak is no paradise flowing with milk and honey but, on the other hand, it isn't nearly so grim as your startled imagination might picture it. After all, people have been living there for years.

To help protect yourself during going-away parties, here's the story

on living conditions aboard the Navy's Aleutian outpost, as told to ALL HANDS through the courtesy of Adak Naval Station. We can't vouch for the facts personally, as Adak is a little off our beat.

Adak, on which the Naval Station is located, is an island of the Andreanof Group, located in the southernmost part of the Aleutian Chain. The country is rugged and mountainous, and although the island is covered with grass, it has no trees. There is

neither a native population nor a civilian settlement or village on the island.

It has an average winter temperature of 32°F. The summer months of June, July and August are relatively mild, with the average temperature at about 44°F. The thermometer rarely climbs into the 70s. We suggest this would be a good season to write your friends in Guantanamo Bay and Panama.

The average rainfall is some 44 inches per year—which our correspondent assures us is less than some states—and there are long wet spells. During the winter, snow and sleet flurries occur almost daily, although heavy snows are rare at the base. The mountains are covered with snow about eight months of the year.

The most disturbing part of Adak weather is the high wind. Gusts occasionally reach 80 knots and, during the winter, winds of hurricane strength have been recorded. Though these winds may sound extreme, they affect station life very little.

There are about 125 miles of roads on Adak. Most of them are not paved, but they are in fair to good condition. Buses cover all major parts of the station and run on schedule.

Autos—If you have a family you need an automobile and, under any circumstance, a car is highly desirable. No matter what your status, you are encouraged to bring your car, as other forms of transportation are limited. Climate and roads being what they are, choose one that has a minimum of chrome and gingerbread and that is in good mechanical condition. Repair and maintenance facilities are limited and if you can't get parts through normal mail order sources, you're going to walk. Snow or heavy duty tires are recommended, and it is also advisable to have your car undercoated before it is shipped. Try to see that it is as waterproof as possible because it is going to sit out in the weather the year round.

Regular gasoline now costs about 25 cents per gallon.

Your car may be shipped from Seattle to Adak via MSTs free of charge, but you must make sure

WAY BACK WHEN

Coaling Ship

Back in the old days coaling ship was regarded as a drill, but crew members undoubtedly had other words to describe it. However, because coaling was an absolute necessity, especially in time of war, every effort was made to increase the efficiency of the crew in time of peace.

The stations and the duties, different for each ship, were clearly laid down in the coaling bill. As a general rule, each division worked its own part of the ship by setting up coaling screens, rigging canvas over the side, and getting up baskets and shovels and rigging booms and guys. The duties of the engineers usually consisted of rigging portable chutes below, and handling the coal once it was in the chute.

In this drill, no one was excused. It was written in most bills that "No officer or man can leave the ship, except on duty, during coaling."

Each division on the ship was out to make a new record for itself at coaling. Everything depended on the method the ship adopted. Men were stationed on the decks and in the lighters. Petty officers were stationed at strategic points to supervise, direct and expedite the work. And if the occasion was called for, they could show members of the crew how it should be done.

When you're out to set a record, there are many details to watch. Coaling ship was no exception. Special attention was centered on the holding bags, hooking on, hoisting, landing bags on deck or on trucks, unhooking, overhauling hooks, handling empty bags on deck and handling empty bags in lighters.

It was recognized that everything was bound to get dirty. However, if paint was worn off by the foul lead of a whip, or by the dragging of a bag over the rail, the division lost points. It was up to every man in the division to keep the ship in good condition during the operation.

Baskets, bags or buckets were used to get the coal aboard. The preparations by the various divisions meant that they had to provide hawsers fore-and-aft, bend on heaving lines, and have hawsers ready to be passed when coal barges or colliers came alongside. It also meant they had to clear away life lines, hinge down stanchions, rig in lower booms. They had to close and batten down hatches. They had to provide coal bags, shovels, grapple, coaling screens, whips, coaling trucks, backstays and guys for coaling booms. They had to provide cane fenders and, if it was necessary, trice up ladders and hinge them over to the rail and lash them down. They had to take off all scuttle plates and, again, if it became necessary, they had to unship gangways.

After finishing the coaling job, the deck gang had to bathe, then scrub clothes and canvas gear, boat covers and hatch covers; then scrub paint work and decks and clean the boats and all gear. Below decks, the black gang had their hands full, too.

These were "The good days of the old Navy."



that, if you have a lien on the car, you have written permission of the holder of the lien to ship it out of the country. Request authorization from the CO, Adak, for shipment.

Transportation—You and your family may travel to and from Adak by government air or sea transportation at no expense to you. Dependent travel is authorized by the Commandant, 17th Naval District, when government quarters are available. Concurrent travel is rare because of the limited number of government quarters and absence of other accommodations for dependents on Adak.

The Commandant, 13th Naval District, will decide the method of transportation once your family's entry has been approved. Quarters for dependents of enlisted personnel and of officers in pay grade O-3 and below are available for the three to four days required for processing. A small charge is made for subsistence while in transit.

Authority for dependents to enter via commercial means must be obtained from the Commandant, 17th Naval District. This authority will be granted only if government quarters are available. Commercial sea transportation consists of approximately one vessel per month which has a capacity of about 15 cabin class passengers. Commercial air transportation is available through Anchorage.

Housing—Married officers and married enlisted personnel of pay grades E-6 and E-7, and E-5 with eight years' or more active federal service, are eligible for government quarters. Waiting periods vary from three to eight months. Two- and three-bedroom family units are available. Three-bedroom units are intended primarily for families with three or more children. Temporary quarters are available until you move into permanent quarters.

You'll find these items of furniture in your government quarters:

Living Room: One divan, two end tables, two lamps with shades for end tables, two upholstered chairs (lounge type), two occasional chairs, one to three floor lamps with shades, coffee table, bookcase in some quarters, writing table or desk, rug with pad, and large mirror. A vacuum cleaner is shared.

Dining Room: A gateleg table (dropleaf) or a dining table equipped with extension leaves, six to eight

All-Navy Cartoon Contest
William R. Maul, CT2, USN



"Yes, sir, I know my record says I can type 60 words a minute, but you see, only about 13 of them make sense."

dining chairs, one built-in china cabinet or buffet, and one rug with pad or a dinette set.

Dinette: One dinette table and four chairs.

Hall: One telephone shelf and telephone, and rug with pad.

Bedrooms: One double bedframe with spring and mattress or twin beds with springs and mattresses, chair, chest of drawers, night stand, lamp with shade, vanity in master bedroom, large mirror, and rug with pad.

Laundry: One washer and dryer.

Household Goods—Because of the lack of storage space, it is not possible to furnish storage for either government-owned or personal furniture, goods, or appliances, except in the quarters themselves.

All items you bring must be stored in your own quarters, and no government furniture allocated to those quarters may be removed. Most families consider that there is not enough room for both a deep freeze unit (preferably upright model) and an automatic ironer, although some find room for one or the other (usually in a bedroom). Couples without children can plan on having some extra space in the "spare" bedroom.

It is generally agreed that room can be found for one or more of the following items: Sewing machine, vacuum cleaner, record player, tape

recorder. All these items, except sewing machines, are stocked at the Navy Exchange. Bring along sleds for children. The surfaced areas, other than thoroughfares, are limited, a factor which should be considered in deciding whether or not to bring tricycles, bicycles and similar items. Personal furniture and appliances which are similar to government furnished items, and other items for which you will not have room should be placed in storage in the United States. Such storage is furnished at government expense. A limited quantity of china, kitchen utensils and bedding is available until your own arrives. Bring:

Table Silver	Kitchen utensils
Curtains	Pictures
Linens	Drapes
Ironing board	Blankets
Waste-baskets	Radio (regular
Table chinaware	broadcasts and/or
TV set	short-wave)
Small kitchen appliances	Pillows

When you receive orders for duty at Adak, you will have to decide whether the family will plan to make their home there, or will remain in the United States during your tour of duty. If you decide that the family will eventually make their home at Adak, you will then have to make another decision as to whether or not an intermediate move will be necessary during the period while you are awaiting authorization for the family to travel to Adak. If an intermediate move is necessary, it may be made at government expense.

You should contact the Household Goods Section of the nearest supply activity for information regarding transportation of dependents and the shipment and storage of personal effects and household goods. Ask for Bureau of Supplies and Accounts Publication 260, entitled "Household Goods Shipment Information." The Household Goods Section will be glad to give you the latest information regarding entitlement and such other advice and suggestions as you may desire.

Household goods are normally shipped through the Naval Supply Depot, Seattle. Authorization from the Commanding Officer, Naval Station, Adak, is required.

When permission has been received, the nearest Household Goods Section should again be contacted for the latest information regarding

ANSWERS TO QUIZ AWEIGH

1. (a) An airship.
2. (c) 675 feet.
3. (c) Five- and eight-inch guns only.
4. (a) Five miles.
5. (b) Chains.
6. (b) 26 feet.

Quiz Aweigh is on page 57.

movement of your goods to Adak and/or to non-temporary storage. In general, three separate shipments are authorized:

Express shipment (not to exceed 500 pounds total), including the things needed upon your arrival—essential household goods and seasonal clothing.

Freight shipment to non-temporary storage including furniture and items not required.

Freight shipment to Adak, in which you should include the balance of small appliances, extra clothing, and household goods.

The shipments destined for Adak, particularly the express shipment, should be made available to the packers as soon as possible after you receive authorization to travel so that they will arrive at Adak at the earliest possible date.

In addition to these shipments, dependents traveling by ship from Seattle to Adak are allowed 350 pounds of hold baggage for each person over 12, and 175 pounds for each child under 12. This must be in a foot locker or otherwise crated or packed, and is not available to you during the trip, but will arrive at Adak with you.

Personal Clothing—Adak is not a perennial ice box. Your present clothes, with a few additions, should prove adequate. Emphasis should be on water- and wind-repellent fall-weight clothing, because the summer is comparatively cool and the winters only moderately cold. A warm overcoat or parka is a must, as are heavy-soled shoes, raincoat, galoshes and headgear. Heavy clothing is not needed for daily routine living, but outdoor activity makes it advisable to bring woolen suits, sweaters, heavy socks, and warm gloves. For the children, ski suits and parkas are ideal, and extra mittens are advisable. Bring summer clothes, slacks, pedal pushers, swimming suits, and hats. Evening gowns and dinner jackets are desirable for occasional formal parties.

The local shopping center is limited to a Navy Exchange and, therefore, many sundries and notions cannot be bought locally. Limited stocks of clothing are available, however, and a women's and children's ready-to-wear section has recently been established. Ranges of styles and sizes of shoes are quite limited. Al-



"But Boats . . . There's no such thing as medal fatigue!"

though yard goods are stocked, zippers, buttons, thread and other notions are sometimes not available in matching colors. It would be wise to bring a good supply of these items in neutral and commonly used colors if you plan to sew.

Mail Order Service—Mail order service from the Washington-Oregon area is available and widely used. Shipping time by this service approximates four to six weeks.

School—Schooling extends from kindergarten through the 12th grade. Diplomas issued from the high school are acceptable in any state institution of higher learning in the continental United States. Courses not offered by the high school are furnished by correspondence from the University of Nebraska, Extension Division.

The quality of instruction in both the elementary and the high school, especially for juniors and seniors is limited, as there are only three teachers for the four high school grades.

The school building is new, and is located near the housing area. Transportation is furnished. Territorial law requires that a child be five years old before 1 November of the school year to enter kindergarten any time during that school year. To enter the first grade the child must be six before 1 November to enter during that school year.

Churches—There are both Protestant and Catholic chaplains on Adak and religious services are held regularly. Complete programs of religious education are offered.

Recreation—Recreational facilities at Adak are widespread and varied. Special Services has athletic gear available for issue for basketball, softball, badminton, boxing, wres-

ting, track, skiing, skeet, riflery, horseshoes, and bowling. For year-round swimming, an indoor swimming pool is located in the Bering Recreation Building. The Fletcher Library boasts more than 14,000 volumes with a wide distribution of subject matter, as well as current popular magazines. The Bering Theater offers a matinee on Saturday and Sunday and two shows nightly. There are also an indoor rifle range and a skeet range.

There are several clubs: the Officers' Club, Hammerhead Lodge; and Air Force Enlisted Men's Club, The Airmen's Club; the CPO Club; a Civilian Employees' Club; a Marine Enlisted Men's Club; and a Navy Enlisted Men's Club, the Club Bay-view.

There are two package stores: one operated by the Navy Exchange, and one by the Hammerhead Lodge.

A popular recreational activity on Adak is the Hobby Shop. There are automobile repair, photographic, leathercraft and carpentry sections. Model-making and lapidary work are also done there.

Hunting and Fishing—Other than for ptarmigan and a few geese and ducks, there is very little hunting on Adak. Fishing is fair to good in the area, with salmon and trout fishing very popular. Recreational leave may be taken to the mainland of Alaska with its abundant hunting and fishing facilities.

Radio and Television—Adak has an Armed Forces Radio and Television outlet which broadcasts not only important local announcements and events, but also many of your favorite stateside radio and television programs. In addition, many stateside programs may be received on short-wave radio.

Pets—It is strongly recommended that pets not be brought. All cats and dogs must have shots and must be registered with the Security Officer. Dogs must be leashed except when in private quarters.

Medical Care—Medical facilities are available to military and dependent personnel on Adak. For dependents there is a maternity clinic and general medical clinic, but laboratory tests and drugs are limited. Dependents under special medical care are advised that there are no specialists on Adak. Dependents having optical difficulties are advised

to equip themselves with glasses and to make arrangements for replacement before leaving. Emergency medical care is available.

Dental Care—Necessary dental work is performed by appointment for military personnel. Dental treatment is also available for military dependents, but on a deferred priority basis.

U. S. Mail Service—Adak has a Navy Post Office which provides all services available in any U. S. Post Office except Postal Savings and C. O. D. service. First Class and Air Mail arrives on the island at least weekly; newspapers, magazines, and Parcel Post packages are received once or twice a month by ship.

Navy Exchange—The Navy Exchange operates a retail store, a commissary which is well-stocked, a tailor shop, cobbler shop, various snack bars, barber shop, beauty shop, laundry, dry cleaning plant, garage, and service station. The Exchange also offers radio, television, and watch repair service and limited veterinarian service.

Retirement Planning Guide Now Being Distribution

To assist you in your pre-retirement planning, the Bureau of Naval Personnel has prepared a booklet entitled *Your New Career* (NavPers 15895-A) which is being distributed to all ships and stations.

This 64-page guide deals with financial planning for added retirement security, your health and retirement activities, and job procurement.

For those who plan to seek full or part-time employment, there's a lengthy section on civilian relationships of service-acquired skills, knowledge and experiences to business requirements; and how to go about getting a civilian job.

Your New Career is being sent to all ships and stations for use in libraries, I and E offices, and other locations.

In addition to this new pre-retirement planning guide, the Bureau publishes a *Navy Guide for Retired and Fleet Reserve Personnel* (NavPers 15891). A copy of this 64-page booklet—which covers the rights and benefits of a retired Navyman and his dependents—is forwarded to each individual with his retirement or transfer to Fleet Reserve.

HOW DID IT START

Chronometer

Up until the 18th century the "tools" of the navigator's trade were limited to those which could be used for finding the latitude of a ship at sea. To find his longitude a skipper had to rely on dead reckoning, in which he approximated his east-west position by estimating the run of the ship. Because a sailing ship's run was largely dictated by the vagaries of the wind, accuracy was hard to come by.

As early as 1530 the Flemish astronomer, Gemma Frisius, had pointed out the possibility of determining longitude at sea by using a timekeeper, but the mechanical difficulties involved in building an instrument to keep the exact time at sea appeared insurmountable. The watches of that period, called "Nuremberg eggs," weren't accurate enough. Pendulum clocks were too much affected by the roll of a ship, as Christiaan Huygens, a Dutch scientist, found out when he tackled the problem.

Between 1662 and 1670 he constructed several marine timepieces, controlled by pendulums, and subjected them to actual tests at sea. As a result, he discovered that not only the ship's motion, but also the effects of changes in temperature would have to be overcome. Many other inventors also ran into trouble. Still, they kept on trying, for an accurate seagoing timepiece could make finding correct longitude practically a breeze. What was needed was a device that could measure time with accuracy of a fine scientific instrument.

With such a device it would be possible for the ship to carry Greenwich time along wherever it sailed. Then, the navigator could find his longitude simply by comparing the sun time where his ship was to the Greenwich time carried on the "clock." For instance, if the timepiece showed one o'clock when the sun over the ship was in its noon position, this would mean the ship was as far west of Greenwich as the sun "traveled" (or more correctly, the earth turned) in one hour. Thus, since the earth turns 360 degrees in 24 hours, or 15 degrees per hour, the navigator would know he was 15 degrees west of the meridian at Greenwich.

In 1713 a number of British shipowners interested in this problem got together and demanded that their government offer a prize to the person who discovered a good method of determining longitude at sea. The government responded the following year by offering a cash reward of 20,000 pounds sterling, which would be a considerable sum even today. The money was to be distributed by a Board of Longitude.

The development of the sextant in the early 1730s made it possible to determine Greenwich time from the changing position

of the moon among the fixed stars. However, this so-called method of lunar distances was too complicated for practical use and the search went on.

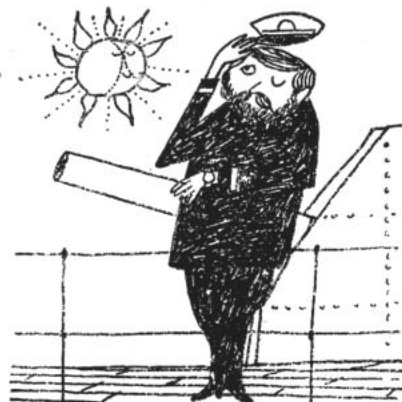
Meanwhile, in 1728 a young clock-maker named John Harrison had come to London and made up his mind to win the 20,000 pounds. The Board of Longitude, which favored the lunar distances method in spite of its complexity, would have nothing to do with him, but Harrison tackled the problem anyway.

By 1735 his first chronometer (literally "time" meter) was ready. The Admiralty, over the opposition of the Longitude Board, agreed to let him test it aboard HMS Centurion. It worked, meeting the stringent requirements for accuracy—but Harrison wasn't given the 20,000 pounds.

Still determined, Harrison went back to work, devoting almost 40 years to the effort to build a finer timekeeper. He turned out model after model, each better than the one before it, until eventually he even had one small enough to be carried in a coat pocket. His time-measuring machines made repeated voyages across the ocean, keeping correct time no matter where they went—yet he got only part of the prize.

Finally, about 1772 or '73 the board paid off the full amount when the king gave orders that Harrison was to be given all the money he had coming to him. By then the "young" clock-maker was over 80 years old and the French inventor, Pierre Le Roy, had produced a chronometer more on the order of those in use today. Others soon followed. But, Harrison is usually given credit for inventing the first successful chronometer and for making modern methods of astronomical navigation possible.

Nowadays, although chronometers date far back into yesterday, the Navy still carries them on such ships-of-tomorrow as the latest CVAs, nuclear submarines and guided missile cruisers.



TAFFRAIL TALK

We visited USS MACON (CA 132)—practically the entire ALL HANDS staff, that is. Our impressions of that fine ship are given in these pages. Lovingly known to some of her crew as "Building 132," and sporting many slogans such as "The Macon Way," she is a smart ship, with a fine crew. In a sense, she's typical of the U. S. Navy fighting ship.

We've lived in a lot of ships, both in our past service, and during our field trips. We have a soft spot in our hearts for the ships we've served in, and for those that we've cruised in. We wish we could visit *your* ship or station too—and maybe we can. Meanwhile, please join us and give credit to a great ship of a powerful Navy—USS Macon. We were proud of that ship and that crew. You can be proud of them, too—for they are your shipmates in this Navy.

As you have seen, she feeds well, pays regularly, and visits interesting places. And—at times, people visit her. One young



lady, for example, trying to find her way around, mentioned that she wanted directions to find "the pointy end of the ship." In case *you* don't know, just look at our centerspread illustration.

★ ★ ★

Here's more proof—if you're looking for it—that a Navy career can be a broadening experience. We are indebted to *Destroyerman*, the DesLant Info Bulletin, for telling us about Robert H. Lance, EN3, and Irvin W. Moore, EN3, who have lined up quite a record for themselves. They have crossed the Equator, the International Date Line and the Antarctic Circle in one ship. Back in the States, they received a transfer to another ship in which they crossed the Greenwich meridian and the Arctic Circle.

Destroyerman thus claims for Lance and Moore the record of crossing every major geographical line in the world and adds for good measure that they have also crossed the Mason-Dixon Line.

Nice going, *Destroyerman*. Of such stuff is mortal journalism made. But one query. Have they never crossed a chow line or pay line?

★ ★ ★

We are frequently embarrassed by what we like to call typographical errors. However, we're happy to see that we're not the only ones who are plagued by typewriter gremlins. The CO of USS Salmon (SSR 573) refused to sign his Supply Officer's monthly Report of Provisions because it was addressed to: Commanding Officer; Navy Subsistence Office; U. S. Naval BUN Factory; Washington 25, D. C.

Looks to us like a slight confusion of cognizance.

The All Hands Staff

The United States Navy

Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keystones of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

ALL HANDS the Bureau of Naval Personnel Information Bulletin, with approval of the Bureau of the Budget on 23 June 1955, is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directions is for information and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

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The Bureau should be kept informed of changes in the number of copies required.

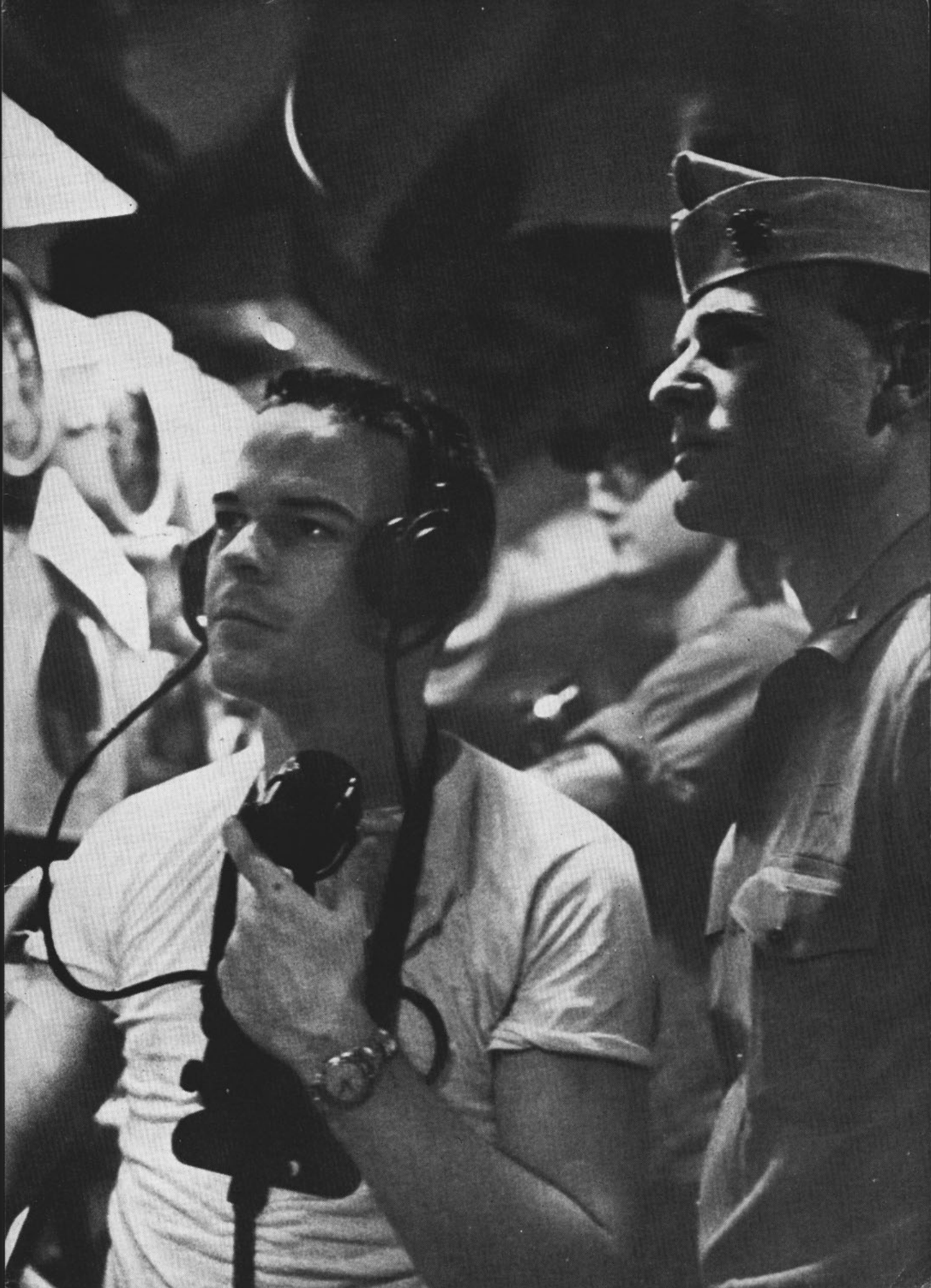
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• **AT RIGHT: GOING CONCERN:**—Talker to bridge D. Reynolds, YN3, verifies speed changes on throttle board as LT F. W. Corley, Jr., main propulsion assistant of USS Macon, stands by.



ONE OF THE
CHIEF REASONS



GOOD MEN MAKE
a strong Fleet
a strong Navy